COBEM 2023

27TH INTERNATIONAL CONGRESS OF MECHANICAL ENGINEERING

Program Book

Program in a glance

Program Overview Monday, Dec 4	
Time	**Sessions**
8:00 - 9:30	Registration
9:10 -10:30	Oral presentations
10:30 - 10:50	Coffee break - EXHIBITION HALL B
10:50 - 12:10	Oral presentations
12:10 - 13:30	lunch
13:30 - 14:40	ABCM/ABEPRO Panel Discussion: Antonio Cezar Bornia, ABEPRO Domingos Rade, ABCM Gherhardt Ribatsky CAPES/Eng III ARVOREDO 6
13:30 - 14:50	Oral presentations
15:00 - 16:00	Keynote lecture Rigoberto Morales ARVOREDO 6
14:50 - 16:10	Oral presentations
16:10 - 17:00	Poster presentations / Exhibition Coffee-break - EXHIBITION HALL B
16:20 - 16:50	Meet the Writers: José Luiz F. Freire, Marcelo R. Rennó Gomes, Marcelino Guedes Gomes, Handbook of Pipeline Engineering - SPRINGER - EXHIBITION HALL B
17:00 - 18:30	Opening cerimony ARVOREDO 6

Program Overview Tuesday, Dec 5	
Time	**Sessions**
8:00 - 10:00	Short Course: Clovis Maliska ARMAÇÃO
8:00 - 10:00	Oral presentations
10:00 - 10:30	Coffee break - EXHIBITION HALL B
10:00 - 10:30	Meet the Writer Clovis R. Maliska Fundamentals of Computational Fluid Dynamics - SPRINGER EXHIBITION HALL B
10:30 - 11:30	Keynote Lecture: Mardson McQuay ARVOREDO 6
10:30 - 12:10	Oral presentations
12:10 - 13:30	lunch
13:30 - 14:30	Short Course: Tiago Faria - ESSS ARVOREDO 6
13:30 - 16:00	Short Course: Mardson McQuay ARMAÇÃO
13:30 - 14:50	Oral presentations
15:00 - 16:00	Keynote Lecture: Vladislav Sorokin ARVOREDO 6
15:00 - 16:00	FLYMOVE/EMBRAER Presentation - ARVOREDO 4
14:50 - 16:10	Oral presentations
16:10 - 17:00	Poster presentations / Exhibition Coffee-break - EXHIBITION HALL B
16:20 - 16:50	CISER Presentation - EXHIBITION HALL B
17:00 - 17:40	ABCM/EMBRAER Prize ARVOREDO 6
17:40 - 18:20	Pipeline Brazil Prize ARVOREDO 6
18:20 - 19:50	ABCM committee meetings

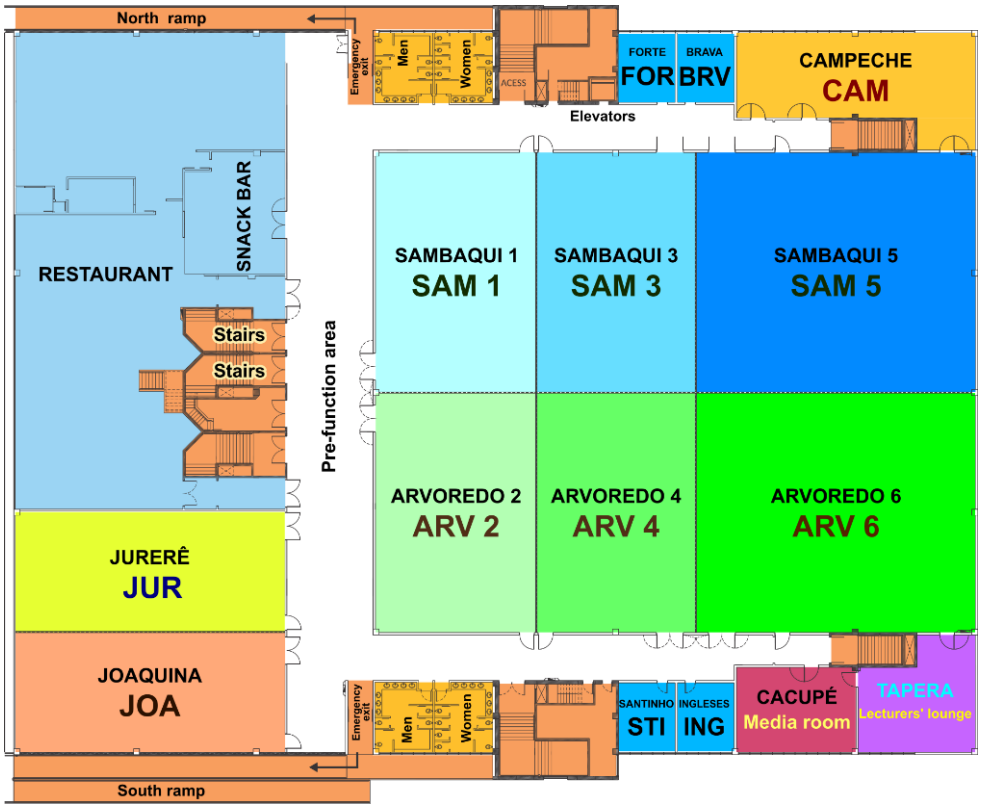
Program Overview Wednesday, Dec 6	
Time	**Sessions**
8:00 -10:00	Short Course: Juan Pablo Salazar ARMAÇÃO
8:00 - 10:00	Oral presentations
10:00 - 10:30	Coffee break - EXHIBITION HALL B
10:00 - 10:30	Meet the Writers: Lauro C. Nicolazzi, Longuinho M. Leal, Edison da Rosa Vehicle Engineering - ORSA MAGGIORE EXHIBITION HALL B
10:30 - 11:30	Keynote Lecture: Hans-Georg Schweiger ARVOREDO 6
10:30 - 12:10	Oral presentations
12:10 - 13:30	lunch
13:30 - 14:30	ALTAIR lecture: Rodrigo Merigo and Frederico Pio SAMBAQUI 5
13:30 - 14:40	CREA/ABCM Panel Discussion: Perspectives on Engineering Education and the New National Curricular Requirements ARVOREDO 6
13:30 - 14:50	Oral presentations
15:00 - 16:00	Keynote Lecture: Arthur Motta ARVOREDO 6
14:50 - 16:10	Oral presentations
16:10 - 17:00	Poster presentations / Exhibition Coffee-break - EXHIBITION HALL B
16:10 - 17:00	AlumniEMC Panel Discussion: The Role of the Engineer in Transforming the Future EXHIBITION HALL B
17:00 - 18:00	Prof. Leonardo Goldstein Jr. Prize ARVOREDO 6
18:00 - 19:30	ABCM committee meetings

Program Overview Thursday, Dec 7	
Time	**Sessions**
8:00 - 10:00	Short Course: Guilherme C. Fraga ARMAÇÃO
8:00 - 10:00	Oral presentations
10:00 - 10:30	Coffee break - EXHIBITION HALL B
10:00 - 10:30	Meet the Writer Jair C. Dutra Science and Technology of Voltaic Arc Welding - ALFA CENTAURI - EXHIBITION HALL B
10:30 - 11:30	Keynote Lecture: Dirk Oberschmidt ARVOREDO 6
10:30 - 12:10	Oral presentations
12:10 - 13:30	lunch
13:30 - 14:30	Invited lecture: Roger Greenwood - US DOD SAMBAQUI 5
13:30 - 14:40	ABCM Panel Discussion: Fostering Diversity in Engineering ARVOREDO 6
13:30 - 14:50	Oral presentations
15:00 - 16:00	ABCM Memorial Lecture: Luis Bevilacqua ARVOREDO 6
14:50 - 16:10	Oral presentations
16:10 - 17:00	Poster presentations / Exhibition Coffee-break - EXHIBITION HALL B
16:20 - 16:50	Meet the Writer: José R. Simões Moreira Renewable Energy, Distributed Generation and Energy Efficiency, Fundamentals of Heat Transfer - LTC EXHIBITION HALL B
17:00 - 19:00	ABCM General Assembly ARVOREDO 6
19:00 - 22:00	Congress diner EXHIBITION HALL A

Program Overview Friday, Dec 8	
Time	**Sessions**
8:00 - 10:00	Short Course: Juan Pablo Salazar ARMAÇÃO
8:00 - 10:00	Oral presentations
10:00 - 10:30	Coffee break - EXHIBITION HALL B
10:30 - 11:30	Invited Lecture: Sergej Diel and Gero Walter ARVOREDO 6
10:30 - 12:10	Oral presentations
12:10 - 13:30	lunch
13:30 - 14:40	Short Course: Guilherme C. Fraga ARMAÇÃO
13:30 - 14:50	Oral presentations
14:50 - 16:10	Oral presentations
16:10 - 16:30	Springer Best Paper Award ARVORED0 6
16:30 - 17:30	Closing session and Congress farewell coffee ARVOREDO 6

Street level

Upper floor



Welcome to Florianópolis

Florianópolis is the capital of the state of Santa Catarina. Most of the city is located on Santa Catarina Island. Three bridges connect it to the mainland. One of them, the Hercilio Luz Bridge, was built in 1925. It is the only one still preserved of the three bridges built with the same design.

Florianópolis has a warm, humid, subtropical climate. The seasons are distinct, with a well-defined summer and winter and typically mild weather in the fall and spring. Frost occasionally occurs in the winter. Relative humidity is about 80% throughout the year. In the first week of December, the expected temperature varies between 20 °C and 27 °C, mostly under clear skies. Bring your sunglasses.

The city is famous for its natural beauty and quality of life – the best among all Brazilian capitals. There are several beaches along the coast, from calm and warm waters in the west and north to surfing beaches in the east and south. There are also many other attractions to visit, such as the historic city center, the "freguesias", neighborhoods with Portuguese colonial architecture and typical restaurants that serve the best seafood in the region, the Conceição lagoon and the colonial forts. The city's inhabitants are also known for their hospitality. In 2013, the city was named the friendliest city in the world by CNN's Conde Nast Traveler magazine.

But it's not just Florianópolis' natural beauty, delicious food and warm hospitality that attracts people to settle here. In 2023, Florianópolis ranked second overall in the Entrepreneurial Cities Index (ICE). This index considers seven determinants: regulatory environment, infrastructure, market, access to venture capital, innovation, human capital and innovation culture. In addition to ranking second overall, Florianópolis also ranked first in the innovation and human capital indices. This reflects the two main sectors that today contribute to the city's GDP: the technology/innovation sector and the tourism sector.

Come and experience the many facets of Florianopolis. We are sure you will enjoy your visit.

For more information about Florianopolis, please visit:

https://www.viajemais.sc.gov.br/

Venue

CentroSul Convention Center

Av. Gov. Gustavo Richard, 850 – Centro, Florianópolis – SC.

Link to Google maps https://goo.gl/maps/Mv4hCYbfzEzsry7t7

Organizing Committee

	**Amir Antônio Martins de Oliveira Jr**	**Event Chair**	UFSC/EMC
	**Milton Pereira**	**Chair of the Scientific Committee**	UFSC/EMC
	**Henrique Simas**	**Executive Chair**	UFSC/EMC
	**Marcos Paulo Nostrani**	**Coordinator of Program**	UFSC/EMC
	**Joel Boeng**	**Coordinator of Supporting Team**	UFSC/EMC
	**Felipe Ebersbach**	**Support and Communication**	UFSC/EMC

Symposium Coordinators

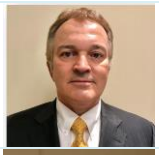
Symposium	ABCM Technical Committee coordinator	Local coordinator
Aerospace Engineering	Daniel Sampaio Souza, UNESP (Secretary of ABCM Committee)	Talita Sauter Possamai, UFSC/EMB (Symposium Chair)
Bioengineering	Edson Antonio Capello Sousa, UNESP (Secretary of ABCM Committee)	Carlos Rodrigo de Mello Roesler, UFSC/EMC (Symposium Chair)
Combustion	Andrés Armando Mendiburu Zevallos, UFRGS (Secretary of ABCM Committee)	Rafael de Camargo Catapan, UFSC/EMB (Symposium Chair) Thiago Cardoso de Souza
Dynamics, Control, Vibrations, and Acoustics	Paulo Roberto Gardel Kurka, UNICAMP (Secretary of ABCM Committee)	Julio Apolinário Cordioli, UFSC/EMC (Symposium Chair)
Education	André Luiz Tenório Rezende, IME (ABCM's Teaching, Learning, and Research Diffusion Comission)	Sergio Luiz Gargioni, UFSC/EMC (Symposium Chair)
Energy and Thermal Sciences	Felipe Roman Centeno, UFRGS (Secretary of ABCM Committee) Paulo Augusto Berquo de Sampaio, IEN/CNEN (Secretary of ABCM committee – Nuclear Engineering)	Julio Cesar Passos, UFSC/EMC (Symposium Chair) Edson Bazzo, UFSC/EMC (Symposium Chair) Joel Boeng Rafael Franklin Lázaro de Cerqueira Jaime Andrés Lozano Cadena
Engineering Design	Zilda de Castro Silveira, USP-SC (Secretary of ABCM Committee)	Cristiano Vasconcellos Ferreira, UFSC/EMB (Symposium Chair) Rodrigo Bastos Fernandes, UFSC/EMC (Symposium Chair) Valter Beal, SENAI-CIMATEC
Fluid Mechanics and Rheology	Rigoberto Eleazar Melgarejo Morales, UTFPR (Secretary of ABCM Committee)	Juan Pablo de Lima Costa Salazar, UFSC/EMB (Symposium Chair)

Fracture, Fatigue, and Structural Integrity	**Mariano Andrés Arbelo, ITA (Secretary of ABCM Committee)** **Ramiro Willmersdorf, UFPE**	**Eduardo Alberto Fancello, UFSC/EMC (Symposium Chair)**
Heating, Ventilation, Air-Conditioning, and Refrigeration	**Enio Pedone Bandarra Filho, UFU (Secretary of ABCM Committee)** **Guilherme Borges Ribeiro, ITA**	**Diogo Lôndero da Silva, UFSC/EMB (Symposium Chair)**
Materials and Manufacturing Engineering	**Deborah Oliveira, UnB (Secretary of ABCM Committee)**	**Felipe Gustavo Ebersbach UFSC/EMC**
Mechatronics and Automation	**Rogério Sales Gonçalves, UFU (Secretary of ABCM Committee)**	**Daniel Martins, UFSC/EMC (Symposium Chair)** **Roberto Simoni, UFSC**
Nano and Microfluidic and Microsystems	**Débora Carneiro Moreira, USP-EESC (Secretary of ABCM Committee)**	**Fabiano Gilberto Wolf, UFSC/EMB (Symposium Chair)**
Non-linear Phenomena	**Paulo José Paupitz Gonçalves, UNESP (Secretary of ABCM Committee)**	**Marcelo Kranjc Alves, UFSC/EMC (Symposium Chair)**
Offshore and Petroleum Engineering	**Celso Kazuyuki Morooka, UNICAMP (Secretary of ABCM Committee)**	**Emilio Ernesto Paladino, UFSC/EMC (Symposium Chair)** **Celso Peres Fernandes, UFSC/EMC**
Smart Materials and Structures	**Marcelo Amorim Savi, UFRJ (Secretary of ABCM Committee)** **Lucas Vignoli UFRJ**	**Paulo Antonio Pereira Wendhausen, UFSC/EMC (Symposium Chair)**
Solid Mechanics	**Marco Lúcio Bittencourt, UNICAMP (Secretary of ABCM Committee)**	**Paulo de Tarso Rocha de Mendonça, UFSC/EMC (Symposium Chair)**
Uncertainty Quantification and Stochastic Modeling	**Marcelo Trindade, UsP-EESC (Member of ABCM Committee)**	**Rafael Holdorf Lopez, UFSC/ECV (Symposium Chair)**

Lecture program - Memorial, keynotes and invited lectures:

ABCM MEMORIAL LECTURE				
Luiz Bevilacqua	Universidade Federal do Rio de Janeiro	**... e quando comemoramos os 50 anos ...**	Thursday, 3 pm – 4 pm	ARV 6
KEYNOTE LECTURES				
Arthur T. Motta	The Pennsylvania State University	**Effects of reactor exposure on nuclear fuel cladding**	Wednesday, 3 pm – 4 pm	ARV 6
Dirk Oberschmidt	Technische Universität Berlin	**Current challenges for ultraprecision machining in the manufacture of optically functional structures**	Thursday, 10:30 am – 11:30 am	ARV 6
Hans-Georg Schweiger	Technische Hochschule Ingolstadt	**Current topics in safety of battery systems and electric vehicles**	Wednesday, 10:30 am – 11:30 am	ARV 6
Mardson Q. McQuay	King Abdullah University of Science and Technology	**Don't waste your budget: you need a strong patent to protect your invention**	Tuesday, 10:30 am – 11:30 am	ARV 6
Rigoberto E. M. Morales	Universidade Technológica Federal do Paraná	**Phase interaction and structures in multiphase flow**	Monday, 3 pm – 4 pm	ARV 6
Vladislav Sorokin	University of Auckland	**Nonlinear dynamic systems under parametric excitation: unusual phenomena and practical applications**	Tuesday, 3 pm – 4 pm	ARV 6
INVITED LECTURES				
Domingos A. Rade	FLYMOVE/EMBRAER	**The engineering research center for the aerial mobility of the future: a structuring initiative jointly supported by fapesp and embraer.**	Tuesday, 3 pm – 4 pm	ARV 4
Rodrigo Merigo and Frederico Pio	ALTAIR	**Digital Twins: physics and data-driven approaches for design and operations**	Wednesday, 1:30 pm – 2:30 pm	SAM 5
Roger Greenwood	AFOSR/IOS, Southern Office of Aerospace R&D	**Department of Defense science and technology opportunities**	Thursday, 1:30 pm – 2:30 pm	SAM 5
Sergej Diel and Gero Walter	Technische Hochschule Ingolstadt	**Hydrogen Technologies for Mobility Applications**	Friday, 10:30 am – 11:30 am	ARV 6

Short courses

	Name	Institution	Title	
	**Mardson McQuay**	King Abdullah University of Science and Technology	**Fundamentals of Intellectual Property for Scientists and Engineers**	Tuesday, 1:30 pm – 4 pm
	**Clovis Maliska**	ESSS Institute for Education and Research	**Fundamentals of Computational Fluid Dynamics and Applications**	Tuesday, 8 am – 10 am; Tuesday, 1:30 pm – 2:30 pm
	**Juan Pablo Costa de Lima Salazar**	Department of Aerospace Engineering - UFSC	**Introduction to CFD with OpenFOAM**	Wednesday, 8 am – 10 am; Friday, 8 am – 10 am
	**Guilherme Crivelli Fraga**	Department of Mechanical Engineering - UFRGS	**An Introduction to LaTeX for Academia**	Thursday, 8 am – 10 am; Friday, 1:30 pm – 2:50 pm

Panel Discussions

ABCM/ABEPRO Panel Discussion	The Evaluation of Graduate Programs in CAPES Eng III	Gherhardt Ribatsky (CAPES Eng III), Antonio Cesar Bornia (ABEPRO), Domingos A. Rade (ABCM)	Monday, 1:30 pm – 2:40 pm	ARV 6
CREA/ABCM Panel Discussion	The national curricular requirements and the professional assignments for mechanical engineers (in Portuguese)	CONFEA, ABENGE, FIESC	Wednesday, 1:30 pm – 2:40 pm	ARV 6
ABCM Panel Discussion	Fostering Diversity in Engineering	ABCM, UFSC	Thursday, 1:30 pm – 2:40 pm	ARV 6
AlumniEMC Panel Discussion	The Role of the Engineer in Transforming the Future (in Portuguese)	Rodrigo Pérsico (ATECH/EMBRAER), André Michel Kehrwald (C-Pack), Carlos Rodrigo de Mello Roesler (UFSC/CNAEX)	Wednesday, 4:10 pm – 5 pm	Exhibition Hall B

Award Sessions

ABCM/EMBRAER Prize	Tuesday, 5 pm – 5:40 pm	ARV 6
PipelineBrazil Prize	Tuesday, 5:40 pm – 6:20 pm	ARV 6
Professor Leonardo Goldstein Jr. Prize	Wednesday, 5 pm – 6 pm	ARV 6
Springer Best Paper Award	Friday, 4:10 pm – 4:30 pm	ARV 6

Meet the writer

Author(s)	Book title	Editor	Day/time	Place
José Luiz F. Freire, Marcelo R. Rennó Gomes, Marcelino Guedes Gomes	**Handbook of Pipeline Engineering**	**Springer**	Monday, 4:20 pm – 4:50 pm	Exhibition Hall B
Clovis R. Maliska	**Fundamentals of Computational Fluid Dynamics**	**Springer**	Tuesday, 10 am – 10:30 am	Exhibition Hall B
Lauro C. Nicolazzi, Longuinho M. Leal, Edison da Rosa	**Vehicle Engineering**	**Orsa-Maggiore**	Wednesday, 10 am – 10:30 am	Exhibition Hall B
Jair C. Dutra	**Science and Technology of Voltaic Arc Welding**	**Alfa Centauri**	Thursday, 10 am – 10:30 am	Exhibition Hall B
José R. Simões Moreira	**Renewable Energy, Distributed Generation and Energy Efficiency, Fundamentals of Heat Transfer for Engineering**	**LTC**	Thursday, 4:20 pm – 4:50 pm	Exhibition Hall B

ABCM Technical Committee

ABCM Technical Committee	Tuesday, December 5, 18:20 - 19:50 ROOM	Wednesday, December 6, 18:00 - 19:30 ROOM
Aerospace Engineering	ARV 4	
Bioengineering	SAM 1	
Combustion		ARV 4
Dynamics	SAM 3	
Engineering Design	JUR	
Fluid Mechanics		ARV 6
Fracture, Fatigue, and Structural Integrity		SAM 1
Heating, Ventilation, Air-Conditioning, and Refrigeration		ARV 2
Manufacturing Engineering	SAM 5	
Mechatronics		SAM 3
Nano and Microfluidic and Microsystems		JOA
Non-linear and Caotic Phenomena		JUR
Nuclear Engineering		ING
Offshore and Petroleum Engineering	ARV 2	
Pressure Vessels and Pipeline		CAM
Smart Materials and Structures	JOA	
Solid Mechanics		SAM 5
Thermal Sciences	ARV 6	
Uncertainty Quantification and Stochastic Modeling	CAM	

Sponsors

PROMOTION

ABCM
Associação Brasileira de Engenharia e Ciências Mecânicas

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Projecta
EVENTOS & MARKETING

DETAILED PROGRAM

ENTS
Energy and Thermal Sciences

Monday, Dec 4	
Time	Sessions
9:10 -10:30	MON-1 SAM 5
10:30 - 10:50	Coffee break
10:50 - 12:10	MON-2 SAM 5
12:10 - 13:30	Lunch
13:30 - 14:50	MON-3 SAM 5
14:50 - 16:10	MON-4 SAM 5
16:10 - 17:00	Coffee break & Poster presentations

Tuesday, Dec 5	
Time	Sessions
8:00 - 10:00	TUE-1 SAM 5 TUE-1 SAM 3
10:00 - 10:30	Coffee break
10:30 - 12:10	TUE-2 SAM 5 TUE-2 SAM 3
12:10 - 13:30	lunch
13:30 - 14:50	TUE-3 SAM 5 TUE-3 SAM 3
14:50 - 16:10	TUE-4 SAM 5 TUE-4 SAM 3
16:10 - 17:00	Coffee break & Poster presentations

Wednesday, Dec 6	
Time	Sessions
8:00 - 10:00	WED-1 SAM 5 WED-1 SAM 3
10:00 - 10:30	Coffee break
10:30 - 12:10	WED-2 SAM 5 WED-2 SAM 3
12:10 - 13:30	Lunch
13:30 - 14:50	WED-3 AMC WED-3 SAM 3
14:50 - 16:10	WED-4 AMC WED-4 SAM 3 WED-4 SAM 5
16:10 - 17:00	Coffee break & Poster presentations

Thursday, Dec 7	
Time	Sessions
8:00 - 10:00	THU-1 SAM 5 THU-1 SAM 3
10:00 - 10:30	Coffee break
10:30 - 12:10	THU-2 SAM 5 THU-2 SAM 3
12:10 - 13:30	lunch
13:30 - 14:50	THU-3 SAM 3
14:50 - 16:10	THU-4 SAM 3
16:10 - 17:00	Coffee break & Poster presentations

Friday, Dec 8	
Time	Sessions
8:00 - 10:00	FRI-1 SAM 5 FRI-1 SAM 3 FRI-1 ARV 4
10:00 - 10:30	Coffee break
10:30 - 12:10	FRI-2 SAM 5
12:10 - 13:30	lunch
13:30 - 14:50	
14:50 - 16:10	

Energy and Thermal Sciences

ORAL PRESENTATIONS

Monday 04 - Room SAMBAQUI 5

Session: ENTS - Thermodynamics and Thermal Systems - MON-1 SAM 5

Chair: Eduardo Burin (UFPR)

Time	Code	Title	Presenter
09:10 - 09:30	0251	Numerical analysis of the magnetic flux density profile impact on the total power produced by a linear thermomagnetic motor	Clara Silva
09:30 - 09:50	0349	The performance of a suction valve installed on the piston of a variable-speed reciprocating compressor	Willian Silva
09:50 - 10:10	0540	Experimental investigation of hydrate formation in crude oil and high salinity brines	Luiz Fernando Santos de Vasconcelos
10:10 - 10:30	0766	Comparison of energetic model applied to desalination unit with multiples effects	Eduardo José Cidade Cavalcanti

Session: ENTS - Numerical Heat Transfer - MON-2 SAM 5

Chair: Thiago Cardoso de Souza (UFSC)

Time	Code	Title	Presenter
10:50 - 11:10	1852	Heat flux estimation in the turning process using the sequential method with non-constant future times	Lucas Gouveia Bontempo
11:10 - 11:30	2282	Evaluation of the SRI and the WSGG models in high pressure supercritical CO2 media	Felipe Ramos Coelho
11:30 - 11:50	2179	Topology optimization of a simple conjugate fluid heat system with heat sources and convective boundary using adjoint method	Javier Aliaga Rivera
11:50 - 12:10	2042	Optimization of microchannel heat exchangers using genetic algorithms	Bruno Scaramuzza dos Reis

Session: ENTS - Numerical Heat Transfer - MON-3 SAM 5

Chair: César Cunha Pacheco (UFF)

Time	Code	Title	Presenter
13:30 - 13:50	0673	Analysis of Optimal Fin Spacing for Enhanced Heat Transfer in Horizontal Tubes	Thiago Cardoso de Souza
13:50 - 14:10	0750	Comparison between pseudopotential and phase-field lattice Boltzmann method for the liquid-gas phase-change Stefan problem	Ivan Martins
14:10 - 14:30	0852	Development of a Heat Transfer Correlation for Thermal Simulation of Finned Heat Sinks in Electronics Under Forced Convection	Aron Martins Ferreira Milagres
14:30 - 14:50	1071	Recursive Heat Flux Estimation in Nonlinear Heat Conduction using Kalman Filter and Kirchhoff Transform	Arthur Anastácio

Session: ENTS - Nuclear Energy - MON-4 SAM 5

Chair: Paulo Augusto Berquo de Sampaio (CNEM)

Time	Code	Title	Presenter
14:50 - 15:10	0725	Hybrid DCMD and SWRO desalination using a small PWR of 75 MW(th) for cogeneration of water and electricity	Paulo Augusto Berquo de Sampaio
15:10 - 15:30	1849	Development of a computational code for thermodynamic analysis of angra 2 and 3 nuclear power plants	Tailana Souza
15:30 - 15:50	2135	Analysis of nuclear desalination using rejected and extracted heat in small modular reactor with membrane distillation	Gabriel Caetano Gomes Ribeiro da Silva
15:50 - 16:10			

Tuesday 05 - Room SAMBAQUI 5

Session: ENTS - Applied Heat and Mass Transfer - TUE-1 SAM 5

Chair: Fernando Testoni Knabben (UFSC)

Time	Code	Title	Presenter
08:00 - 08:20	2121	Assessment of temperature and electric field effect on nickel recovery from spent catalyst via electro-leaching	Carolina Mocelin Gomes Pires
08:20 - 08:40	1529	Analysis of the magnetic field influence on ferrofluid heat exchangers for applications in thermoacoustic engines	Flávio Bannwart
08:40 - 09:00	1633	On the influence of asymmetric configurations of a magnetic field in the thermo-magnetic convection in a ferrofluid cavity An experimental investigation	Flávio Bannwart
09:00 - 09:20	1701	An Alternative Method to Predict Temperature Distribution for Induction Heating of Cylindrical Cases	Raffael de Carvalho Gonçalves
09:20 - 09:40	1977	Performance evaluation of standing wave thermoacoustic engines for different geometries	Caio Everton
09:40 - 10:00	2023	Experimental evaluation of a plate-type heat exchanger using the thermosyphon's principle	Allefe Chagas Vaz

Session: ENTS - Applied Heat and Mass Transfer - TUE-2 SAM 5

Chair: Fernando Testoni Knabben (UFSC)

Time	Code	Title	Presenter
10:30 - 10:50	2003	Numerical model of the tetrahydrofuran hydrate growth kinetic	Gino Noel Delgado Dextre
10:50 - 11:10	1290	MODELING HEAT AND MASS TRANSFER WITH CHEMICAL KINETICS FOR THE PYROLYSIS OF OIL SLUDGE	Leandro Alcoforado Sphaier
11:10 - 11:30	2145	Experimental analysis of the desalination process by vacuum enhanced air gap membrane distillation in a pilot system	Ingrid Curcino
11:30 - 11:50	0393	Experimental study to analyze the temperature profile of a mashing process	Julio Santos
11:50 - 12:10	0850	Mathematical modeling of microalgae oil extraction through fixed bed reactor with solvent perfusion	Heloísa da Silva

Session: ENTS - Applied Heat and Mass Transfer - TUE-3 SAM 5

Chair: Marcia Barbosa Henriques Mantelli (UFSC)

Time	Code	Title	Presenter
13:30 - 13:50	0255	Thermal performance of mini flat plate heat pipes for high-power chips	Larissa Krambeck
13:50 - 14:10	0257	Investigation of a thin loop heat pipe with a novel porous media	Kelvin Guessi Domiciano
14:10 - 14:30	2368	Estimation of spatial varying thermal contact conductance in dual layers pipes using the reciprocity functional approach	Carlos Eduardo Polatschek Kopperschmidt
14:30 - 14:50	0817	Flat plate pulsating heat pipe for electronics cooling	Luis Alonso Betancur Arboleda

Session: ENTS - Applied Heat and Mass Transfer - TUE-4 SAM 5

Chair: Talita Sauter Possamai (UFSC)

Time	Code	Title	Presenter
14:50 - 15:10	0444	Thermal analysis of the impact of six months in a 1U cubesat in LEO	Rodrigo Cardozo
15:10 - 15:30	0445	Analysis of a thermal vacuum chamber project for nanosatellites tests	Vitória Tessari
15:30 - 15:50	0405	Transient model for the internal pressure of vacuum insulation panels	Cristiano Tibiriçá
15:50 - 16:10	2129	Comparison of the performances of the wide-band based weighted-sum-of-gray-gases and box models in the calculation of non-gray boundaries at high pressures	Roberta Juliana Collet da Fonseca

Tuesday 05 - Room SAMBAQUI 3

Session: ENTS - Renewable Energy & Thermo-Economic Analysis and Energy Policy - TUE-1 SAM 3

Chair: Conrado Ermel (UFRGS)

Time	Code	Title	Presenter
08:00 - 08:20	2204	Effects of canopy architecture in wind-energy potential for power generation by wind turbines	Mario Siqueira
08:20 - 08:40	2336	Analysis of the influence of microalgae as biofertilizers and integration into the renewable energy system	Gabriela Conor
08:40 - 09:00	2340	Mathematical model of a filter for co2 removal of continuous gas supply for an alkaline membrane fuel cell	Matheus Ben-Hur Ramirez Sapucaia
09:00 - 09:20	2322	An economy based on hydrogen and its utilization in renewable energies	Kauana Alessandra dos Santos
09:20 - 09:40	0203	A comparison between analytical and numerical results for the performance of a small-scale solar chimney	Cristiana Maia
09:40 - 10:00			

Session: ENTS - Thermodynamics and Thermal Systems - TUE-2 SAM 3

Chair: Conrado Ermel (UFRGS)

Time	Code	Title	Presenter
10:30 - 10:50	0854	Evaluation of Energy Storage Capacity of Vegetable Oils for Applications as Bio-PCMs	Matheus Guedes
10:50 - 11:10	0867	Electricity and Hydrogen Production by Cogeneration System Applied in a Fuel Station in Brazil: Energy Analysis of a Combined SOFC and Ethanol Steam Reforming Model	Paulo Cordaro
11:10 - 11:30	1288	Thermodynamic and Environmental Evaluation of Solid Oxide Electrolysis Cells for Green Hydrogen Production	Diego Izidoro
11:30 - 11:50	1419	Hydrogen liquefaction, a review of the ongoing methods and a critical analysis of the current studies	Jhonatta Casagrande Bordignon
11:50 - 12:10	1425	Analysis of fuel in surface heat exchangers for aircraft	Edemar Morsch Filho

Session: ENTS - Thermodynamics and Thermal Systems - TUE-3 SAM 3

Chair: Eduardo Burin (UFPR)

Time	Code	Title	Presenter
13:30 - 13:50	1536	Thermo-hydraulic experimental analysis of multi-microchannel heat exchangers	Erick Daniel Rincón Castrillo
13:50 - 14:10	1546	Numerical development of a passive heat exchanger for electric vehicle batteries using Phase Change Material (PCM).	Luis Gonçalves
14:10 - 14:30	1742	ASSESSMENT OF HEALTH PARAMETERS FOR AN INDIVIDUAL PRESENTING METABOLIC SYNDROME: AN EXERGETIC ANALYSIS	João Vitor Garcia
14:30 - 14:50	1942	EXERGO-ENERGETIC ANALYSIS OF A SENSIBLE HEAT STORAGE SYSTEM IN POROUS MEANS	Mario Siqueira

Session: ENTS - Renewable Energy - TUE-4 SAM 3

Chair: Alexandre Kupka da Silva (UFSC)

Time	Code	Title	Presenter
14:50 - 15:10	1022	Energy and economic analysis of an hybrid micro-CHP system with fuel cell using natural gas and photovoltaic panels for residential consumers in 10 Brazilian cities	Florian Alain Yannick Pradelle
15:10 - 15:30	1040	Development of artificial neural networks (ANN) models to predict the production of cumulative biogas from food waste (FW), fruits and vegetables waste (FVW) and their codigestion (CD)	Florian Alain Yannick Pradelle
15:30 - 15:50	1768	Life cycle impact assessment of different scenarios for biogas use in internal combustion engine	Maria dos Reis Santos Borges
15:50 - 16:10	1406	The use of bioethanol in the transportation sector: an overview of the Brazilian scenario	Pedro Tomasi Pedroso

Wednesday 06 - Room SAMBAQUI 5

Session: ENTS - Computational Intell. Applied to Thermal Sys. - WED-1 SAM 5

Chair: Paulo Smith Schneider (UFRGS)

Time	Code	Title	Presenter
08:00 - 08:20	0080	DATA-DRIVEN FLOW RECONSTRUCTION USING LOW FIDELITY SIMULATION FOR COMPRESSIBLE FLOW PREDICTIONS IN CONVERGENT-DIVERGENT NOZZLES	Allan Carvalho
08:20 - 08:40	0399	On the Prediction of Critical Heat Flux via Generalized Additive Models (GAMs)	Renan Santos Barbosa
08:40 - 09:00	0699	Numerical estimation of nonlinear volumetric heat capacity and Laser Beam Welding (LBW) efficiency	Ariel Flores Monteiro de Oliveira
09:00 - 09:20	0986	INTELLIGENT REGRESSION MODELING FOR PERFORMANCE PREDICTION OF A VAPOR COMPRESSION REFRIGERATION PROTOTYPE USING MACHINE LEARNING TECHNIQUES	Felipe Roque de Albuquerque Neto
09:20 - 09:40	1521	Diagnostic model for energy performance in the industry: Case study of micro and small companies	Lara Werncke Vieira
09:40 - 10:00	1621	Predicting solar radiation in Minas Gerais using artificial intelligence techniques	Ricardo Henrique Guedes Furiati

Session: ENTS - Numerical Heat Transfer - WED-2 SAM 5

Chair: Thiago Cardoso de Souza (UFSC)

Time	Code	Title	Presenter
10:30 - 10:50	0222	Numerical Verification of a Parallelized Code Run on GPU Applied to Moving Heat Source Autogenous Welding Processes	Ernandes José Gonçalves do Nascimento
10:50 - 11:10	0334	NUMERICAL STUDY ON THE LIKELIHOOD OF IGNITION OF MATERIALS NEARBY COLLAPSED COMPARTMENT WALLS DURING DWELLINGS' FIRES	Rodolfo Prediger Helfenstein
11:10 - 11:30	0389	NUMERICAL ANALYSIS OF DIFFERENT CONFIGURATIONS OF A COMPLEX COMMERCIAL SINK SUBJECTED TO FORCED CONVECTIVE TURBULENT FLOWS	Tarciso Claudino
11:30 - 11:50	0467	Performance Verification of the Volumetric Thermal Capacitor Method Applied in Moving Heat Source Autogenous Welding Simulation Run in GPU with Enhanced Parallelized Code	Arthur Mendonça de Azevedo
11:50 - 12:10			

Wednesday 06 - Room ARMAÇÃO

Session: ENTS - Applied Heat and Mass Transfer - WED-3 AMC

Chair: Júlio Ferreira (UFSC)

Time	Code	Title	Presenter
13:30 - 13:50	0937	Numerical Modeling and Qualitative Approach for Geometric Design of an Ultracompact Printed Circuit Heat Exchanger for Supercritical CO2	Bruno Henrique de Camargo Moreno
13:50 - 14:10	1041	An Approximate Puff Combination Model for Heavy Gas Dispersion	Renato Letizia Garcia
14:10 - 14:30	1170	Mathematical Modeling and Experimental Validation of Heat Exchangers Operating as a Boiler Using Volume Elements Method	Diego de Lima Sousa
14:30 - 14:50	1256	Numerical Simulation of Full-cone Sprays for Liquid Film Formation	Júlio César Alves Ferreira

Session: ENTS - Applied Heat and Mass Transfer - WED-4 AMC

Chair: Larissa Krambeck (UFSC)

Time	Code	Title	Presenter
14:50 - 15:10	1491	Finite integral transform analysis with homogenized time-dependent boundary conditions of 2-D cylindrical multi-layer composites solution for transient heat conduction applied to plug and abandonment of oil wells	Gabriel Saavedra
15:10 - 15:30	1327	Analysis of radiation shields for the protection of polymeric patches employed in flare stacks	Luiz Cesar Coutinho Junior
15:30 - 15:50	1328	Thermal performance of a low-cost cooling tower installed in a cheese production facility	Lorena Guimarães
15:50 - 16:10	1455	Experimental analysis of a wall-mounted thermosyphon radiator	Allefe Chagas Vaz

Wednesday 06 - Room SAMBAQUI 3

Session: ENTS - Renewable Energy - WED-1 SAM 3

Chair: Felipe Roman Centeno (UFRGS)

Time	Code	Title	Presenter
08:00 - 08:20	0796	Theoretical potential of green hydrogen production from biomass in Minas Gerais	Fernando Jardim Borges da Cunha
08:20 - 08:40	0522	Potential of biohydrogen production from brazilian sanitary landfills: electrolysis versus steam reform	Regina Franciélle Silva Paulino
08:40 - 09:00	0227	A comprehensive review of green hydrogen production powered by solar energy applied to thermodynamics cycles	Fernando Jardim Borges da Cunha
09:00 - 09:20	0268	Investigation on wall temperature fluctuations during hydrogen production by electrolysis	Jeferson Diehl de Oliveira
09:20 - 09:40	0291	Mathematical modeling of hydrogen production from metallic aluminum in pilot scale reactor	Dhyogo Miléo Taher
09:40 - 10:00	1773	Generation of hydrogen by metallic way and its applications for the use of renewable energy	Sophia Elana Bordin

Session: ENTS - Renewable Energy - WED-2 SAM 3

Chair: Flavia Schwarz Franceschini Zinani (UNISINOS)

Time	Code	Title	Presenter
10:30 - 10:50	0740	Influence of metal foam on the bioPCM melting performance	Fábio Becker
10:50 - 11:10	0552	Optical performance comparison of two configurations of linear fresnel collectors receivers	Patricia Scalco
11:10 - 11:30	1247	Evaluation of the influence of varying optical properties on thermographic inspections of the front surface of silicon photovoltaic modules	Flávia Aparecida Ferreira de Oliveira
11:30 - 11:50	0270	Natural gas and solar thermal energy for process steam generation in the Brazilian industry	Eduardo Burin
11:50 - 12:10	1033	Natural gas cogeneration system assisted by solar energy integrated to a mechanical refrigeration for mussel farms applications	Leonardo Pereira Felicidade

Session: ENTS - Renewable Energy - WED-3 SAM 3

Chair: Jonatas Vicente (UFSC)

Time	Code	Title	Presenter
13:30 - 13:50	1016	A comparative study between the combustion of mineral coal and açaí seed in boilers by means of the CeSFaMB	Gabriel Willian Moreira Bezerra
13:50 - 14:10	1019	Study of methodologies for determining higher and lower heating value through proximate analysis of Euterpe Oleracea	Luiz Felipe da Silva Ferreira
14:10 - 14:30	1341	Experimental evaluation of biodiesel production from soybean oil by microwave radiation methodology	Daniel Andrey Herrera Susa
14:30 - 14:50	0687	Gasification of smuggled cigarettes for synthesis gas and energy production	Solidônio Carvalho

Session: ENTS - Renewable Energy - WED-4 SAM 3

Chair: Eduardo José Cidade Cavalcanti (UFRN)

Time	Code	Title	Presenter
14:50 - 15:10	0933	Hybrid fuel cell-photovoltaic off-grid power generation using ethanol reforming	Lucas Marçano
15:10 - 15:30	0373	Energy and exergy losses in photovoltaic-thermal module with polymeric heat exchanger	Bruna de Oliveira Busson
15:30 - 15:50	0547	CHARACTERIZATION OF SOLAR CELLS ACQUIRED IN CHINA VIA ALI-EXPRESS	Rayan Soares
15:50 - 16:10			

Wednesday 06 - Room SAMBAQUI 5

Session: ENTS - Heat and Mass Transfer Fundamentals - WED-4 SAM 5

Chair: Jader Riso Barbosa Junior (UFSC)

Time	Code	Title	Presenter
14:50 - 15:10	1094	A MATHEMATICAL MODEL FOR POROUS PARALLEL FINS WITH CONTACT RESISTANCE AT THEIR BASE	Maria Laura Martins-Costa
15:10 - 15:30	1709	Assessment of the Thermo-Hydraulic Performance of Flow in Concentric Annular Arrangement with the Inner Dimpled Tube.	Gustavo Lousado Silva
15:30 - 15:50	1964	On the Compatibility Between Numerical Model and Experiment of a Thermoacoustic Heat Exchanger	Geovane Costa Clemente
15:50 - 16:10	2352	Transient Thermal Analysis of Thermoplastic Composites Pipelines for Oil-Gas Multiphase Flow with Electric Heat Tracing Technology	Jinhong Yu

Thursday 07 - Room SAMBAQUI 5

Session: ENTS - Renewable Energy - THU-1 SAM 5

Chair: Alexandre Kupka da Silva (UFSC)

Time	Code	Title	Presenter
08:00 - 08:20	1178	GREEN HYDROGEN PRODUCTION THROUGH THE ELECTROLYSIS PROCESS AND ITS POTENTIAL IN BRAZIL	Leonardo Pereira Felicidade
08:20 - 08:40	1732	Solar green hydrogen production analysis: technical and environmental aspects	Lucas Costa
08:40 - 09:00	1787	ELECTROCHEMICAL ANALYSIS OF A MEMBRANELESS ELECTROLYZER FOR GREEN HYDROGEN PRODUCTION	Emerson Barbosa dos Anjos
09:00 - 09:20	1368	A SIMPLE MODEL FOR THE SLOW STORAGE OF HYDROGEN USING PHYSICAL ADSORPTION	Ana Lustosa
09:20 - 09:40	2113	The use of additive manufacturing to produce proton exchange membrane electrolyzer cell components: a systematic review	Bruno Caetano dos Santos Silva
09:40 - 10:00	2029	Novel Challenges and Advancements in Thermal Management of Proton-Exchange Membrane Fuel Cells (PEMFC)	Paulo Vitor de faria

Session: ENTS - Heat and Mass Transfer Fundamentals - THU-2 SAM 5

Chair: Jaime Andrés Lozano Cadena (UFSC)

Time	Code	Title	Presenter
10:30 - 10:50	0075	ANALYSIS OF THE THERMAL EFFICIENCY OF EDUCATIONAL LEARNING ENVIRONMENTS THROUGH NATURAL CONVECTION	Diego Alves de Miranda
10:50 - 11:10	0521	Experimental determination of methane diffusivity in water and brine under hydrate formation conditions	Thales Sirino
11:10 - 11:30	0570	EXPERIMENTAL INVESTIGATION OF WATER-MEG MIXING IN A HELE-SHAW CELL WITH CHANGE OF DIRECTION	Pedro Leineker Ochoski Machado
11:30 - 11:50	0851	Two-phase frictional pressure drop at high saturation temperatures in a horizontal micro-scale channel	Daniel Borba Marchetto
11:50 - 12:10	1034	An Approximate Dispersion Model of Nitrogen Compounds in the Atmosphere with Chemical Reaction	Renato Letizia Garcia

Thursday 07 - Room SAMBAQUI 3

Session: ENTS - Renewable Energy - THU-1 SAM 3

Chair: Bruna de Oliveira Busson (UFSC)

Time	Code	Title	Presenter
08:00 - 08:20	0420	Methodology for evaluating the performance of a small-scale HAWT in a EEE wind tunnel	Celso Antonio Bittencourt Sales Junior
08:20 - 08:40	0572	Fluid dynamics analysis of a micro horizontal axis wind turbine	Celso Antonio Bittencourt Sales Junior
08:40 - 09:00	1496	Two-axis solar tracker for offset parabolic-dish solar concentrators	George Orbezo Alvarez
09:00 - 09:20	1761	Modeling and simulation of a Linear Fresnel CPVT system	Mario Siqueira
09:20 - 09:40			
09:40 - 10:00			

Session: ENTS - Renewable Energy - THU-2 SAM 3

Chair: Eduardo José Cidade Cavalcanti (UFRN)

Time	Code	Title	Presenter
10:30 - 10:50	1125	Ducted Wind Turbines: Technical Feasibility Study in Wind Energy Generation in Rio Grande do Norte	Taynara Tavares
10:50 - 11:10	1139	Study for Application of Oscillating Hydrofoil in Offshore Wind Turbines	Guilherme Amaral do Prado Campos
11:10 - 11:30	1823	Comparative analysis of five probability density functions applied to wind speed	Mario Siqueira
11:30 - 11:50	1348	Artificial intelligence for fault isolation in wind energy conversion systems	César Tadeu Nasser Medeiros Branco
11:50 - 12:10	0097	Experimental appraisal of long-term degradation of PV modules in Rio de Janeiro, Brazil	Manoel Antônio da Fonseca Costa Filho

Session: ENTS - Renewable Energy - THU-3 SAM 3

Chair: José Roberto Simões Moreira (USP)

Time	Code	Title	Presenter
13:30 - 13:50	1201	Combined solar-heat pump systems for heating diesel power plants in standby mode	Gabriel Pereira
13:50 - 14:10	1276	Integration of Solar-Assisted Absorption-Compression Heat Pumps for Industrial Applications	Lorena Guimarães
14:10 - 14:30	0990	Energy analysis of hybrid PV-T Solar assisted heat pump versus traditional PV panel and vacuum solar heater	Giovanni Augusto Petrucci
14:30 - 14:50	2418	DESALINATION PROCESS POWERED BY SOLAR ENERGY	José Roberto Simões Moreira

Session: ENTS - Renewable Energy - THU-4 SAM 3

Chair: Júlio César Passos (UFSC)

Time	Code	Title	Presenter
14:50 - 15:10	0872	Thin layer drying kinetics of grapes dried in a hybrid solar-electric dryer	Gabriel M. B. Cruz
15:10 - 15:30	2136	CHARACTERIZATION OF PARABOLIC CONCENTRATOR DISH WITH FLAT MIRRORS	Oscar Ricardo Sandoval Rodriguez
15:30 - 15:50	1354	NUMERICAL INVESTIGATION OF THE INTERMITTENT FLOW ONSET IN AN EVACUATED TUBE SOLAR COLLECTOR UNDER MULTIPLE OPERATING CONDITIONS	Fernando Claudio Spengler
15:50 - 16:10			

Friday 08 - Room SAMBAQUI 5

Session: ENTS - Renewable Energy - FRI-1 SAM 5

Chair: Júlio César Passos (UFSC)

Time	Code	Title	Presenter
08:00 - 08:20	1049	Mathematical modeling of immobilized microalgae cultivation associated with effluent treatment	Rafael Silva Ribeiro Gonçalves
08:20 - 08:40	2062	Experimental analyzes for growth in biomass production of the microalgae Tetradesmus obliquus in heterotrophic medium	Ana Júlia Ferreira Ganda
08:40 - 09:00	2283	Use of microalgae for circular energy economy focused on agribusiness	Caroline Rusch Schulze
09:00 - 09:20	0895	Biostimulant potential of the microalgae Tetradesmus obliquus cultivated in airlift photobioreactors as a coproduct of biofuels generation	Kauê Melenek
09:20 - 09:40	2142	Technical analysis of the use of biogas produced in the state of paraná as fuel for hydrogen and syngas production through chemical looping	Cristian Felipe Ardila Duran
09:40 - 10:00			

Session: ENTS - Numerical Heat Transfer - FRI-2 SAM 5

Chair: Victor Freire (UFERSA)

Time	Code	Title	Presenter
10:30 - 10:50	1333	A Computational Heat Transfer Model for Thermite Reaction in Offshore Well Plugging and Abandonment Operation	Rodrigo Gustavo Dourado da Silva
10:50 - 11:10	1396	Numerical analysis of the thermohydraulic performance of silver/water nanofluids in turbulent flow	Erick Oliveira do Nascimento
11:10 - 11:30	1486	Counterflow heat exchanger simulation with the Lattice-Boltzmann Method	Vinicius Akyo Matsuda
11:30 - 11:50	1693	A view of the behaviour of the soybean aeration problem with realistic parameters	Daniel Rigoni
11:50 - 12:10	1850	Development of a Numerical Heat Transfer Model via FEM for Transport and Storage of Biological Material and Vaccines Based on Peltier Effect	Felipe Roque de Albuquerque Neto

Friday 08 - Room SAMBAQUI 3

Session: ENTS - Renewable Energy - FRI-1 SAM 3

Chair: Samuel Luna de Abreu (IFSC)

Time	Code	Title	Presenter
08:00 - 08:20	0627	Numerical Simulation of Adsorbed Carbon Dioxide Storage Systems for CCS Applications	Bruno Chieregatti
08:20 - 08:40	1445	Enhancing Efficiency and Thermal Potential of Earth-Air Heat Exchangers with Galvanized Materials and Elliptical Shapes	Ana Maria Domingues
08:40 - 09:00	1471	Analysis of a thermal-photovoltaic system with glycerin-based phase change material employed in Curitiba.	Danniella Rosa
09:00 - 09:20	1933	Numerical and experimental evaluation of Oscillating water Column for renewable energy	Kam Yu Kang
09:20 - 09:40	1569	Integration of micro hydroelectric power plants in a multipurpose bridge-dam in the Rural Amazon	André Mesquita
09:40 - 10:00			

Friday 08 - Room ARVOREDO 4

Session: ENTS - Renewable Energy - FRI-1 ARV 4

Chair: Jacqueline Biancon (UNISINOS)

Time	Code	Title	Presenter
10:30 - 10:50	1629	Electric vehicle battery model identification from data collected in dynamometer test conditions	Joaquim Manoel Gonçalves
10:50 - 11:10	1967	Using solar energy to charge electrical vehicles, an analysis of the Brazilian northeast potential	Arthur Martins Farias
11:10 - 11:30	1337	An overview and a comparative analysis of the main technologies for hydrogen storage	Tamayo Zanforlin Pires de Almeida Motta Dias
11:30 - 11:50	0488	Design and assembly of a magnetic circuit with four magnetic field regions applied to a thermomagnetic motor Prototype	Dalila Torres
11:50 - 12:10	1947	Study of the Peltier-Seebeck Effect in MIG Welding Process	Guilherme Amaral do Prado Campos

FLMR
Fluid Mechanics and Rheology

Monday, Dec 4	
Time	**Sessions**
9:10 -10:30	**MON-1 SAM 1** **MON-1 ARV 4**
10:30 - 10:50	**Coffee break**
10:50 - 12:10	**MON-2 SAM 1** **MON-2 ARV 4**
12:10 - 13:30	Lunch
13:30 - 14:50	**MON-3 SAM 1** **MON 3 ARV 4**
14:50 - 16:10	**MON-4 SAM 1**
16:10 - 17:00	**Coffee break &** **Poster presentations**

Tuesday, Dec 5	
Time	**Sessions**
8:00 - 10:00	**TUE-1 SAM 1** **TUE-1 ARV 4**
10:00 - 10:30	**Coffee break**
10:30 - 12:10	**TUE-2 SAM 1** **TUE-2 ARV 4** **TUE-2 RIB**
12:10 - 13:30	lunch
13:30 - 14:50	**TUE-3 SAM 1** **TUE 3 RIB**
14:50 - 16:10	**TUE-4 SAM 1** **TUE-4 RIB**
16:10 - 17:00	**Coffee break &** **Poster presentations**

Wednesday, Dec 6	
Time	**Sessions**
8:00 - 10:00	**WED-1 SAM 1** **WED-1 ARV 4**
10:00 - 10:30	**Coffee break**
10:30 - 12:10	**WED-2 SAM 1**
12:10 - 13:30	lunch
13:30 - 14:50	**WED-3 SAM 1**
14:50 - 16:10	**WED-4 SAM 1**
16:10 - 17:00	**Coffee break &** **Poster presentations**

Thursday, Dec 7	
Time	**Sessions**
8:00 - 10:00	**THU-1 SAM 1**
10:00 - 10:30	**Coffee break**
10:30 - 12:10	**THU-2 SAM 1**
12:10 - 13:30	Lunch
13:30 - 14:50	**THU-3 SAM 1**
14:50 - 16:10	
16:10 - 17:00	**Coffee break &** **Poster presentations**

Friday, Dec 8	
Time	**Sessions**
8:00 - 10:00	**FRI-1 SAM 1**
10:00 - 10:30	**Coffee break**
10:30 - 12:10	**FRI-2 SAM 1**
12:10 - 13:30	lunch
13:30 - 14:50	
14:50 - 16:10	

Fluid Mechanics and Rheology

ORAL PRESENTATIONS

Monday 04 - Room SAMBAQUI 1

Session: FLMR - Computational Fluid Dynamics - MON-1 SAM 1

Chair: Juan Pablo de Lima Costa Salazar (UFSC)

Time	Code	Title	Presenter
09:10 - 09:30			
09:30 - 09:50	0055	Development, implementation and verification of an MHD compressible solver in OpenFOAM	Juan Pablo de Lima Costa Salazar
09:50 - 10:10			
10:10 - 10:30			

Session: FLMR - Computational Fluid Dynamics - MON-2 SAM 1

Chair: William Roberto Wolf (Unicamp)

Time	Code	Title	Presenter
10:50 - 11:10	0081	Francis Generating Unit Modelling Through High-fidelity CFD Simulations	Leandro Jose Lemes Stival
11:10 - 11:30	0083	LARGE EDDY SIMULATION OF THE ATMOSPHERIC FLOW AROUND WIND TURBINES WITH THE USE OF AN IMMERSED BOUNDARY METHOD	Leandro Jose Lemes Stival
11:30 - 11:50	0515	CFD ANALYSIS OF AN ULTRASONIC FLOWMETER UNDER DIFFERENT FLOW CONDITIONS	Augusto Luiz Cheffer de Melo
11:50 - 12:10	0079	Using Neural Networks to Compute the Divergence of the Reynolds Stress Tensor with Fundamental Mean Flow Properties	Thales Arantes de Castelo Branco e Souza

Session: FLMR - Computational Fluid Dynamics - MON-3 SAM 1

Chair: Aristeu da Silveira Neto (UFU)

Time	Code	Title	Presenter
13:30 - 13:50	0306	Lagrangian Vortices With Corrected Core-Spreading Method and Large Eddy Simulation (LES)	Gabriel Ferraz Marcondes de Carvalho
13:50 - 14:10	0357	Coherent structures in the atmospheric boundary layer using resolvent analysis	Matheus Tozo de Araujo
14:10 - 14:30	0506	AERODYNAMIC PERFORMANCE OF SG6043 PROFILE MODIFIED WITH BIOMIMETIC FOR SMALL WIND TURBINES APPLICATION	Luana Schneider
14:30 - 14:50	0122	Effect Of Moving Vehicles On The Flow And Dispersion Of Carbon Monoxide In An Urban Canyon	Gabriel Gusmão Almeida

Session: FLMR - Computational Fluid Dynamics - MON-4 SAM 1

Chair: Aristeu da Silveira Neto (UFU)

Time	Code	Title	Presenter
14:50 - 15:10	0530	Actuator line method for diffuser-augmented turbines	Matheus Nunes
15:10 - 15:30	0531	Pitch angle impact on the aerodynamic performance of a straight-blade H-Darrieus turbine	Ramiro Bertolina
15:30 - 15:50	0603	Thin film theory applied to mathematical modeling of fluidynamic bearings	Thiago Assis da Silva
15:50 - 16:10	0611	A NUMERICAL STUDY ON 2D SPATIAL MIXING LAYERS USING SPECTRAL/HP METHODS: INSIGHTS ON HOW MESH REFINEMENT AFFECTS FLOW STATISTICS	Daniel Garcia-Ribeiro

Monday 04 - Room ARVOREDO 4

Session: FLMR - Multi-phase Flow - MON-1 ARV 4

Chair: Mateus Grassano Lattari (UFSC)

Time	Code	Title	Presenter
09:10 - 09:30	0063	Particle segregation in bidisperse narrow beds fluidized at different inclinations	Henrique Barbosa de Oliveira
09:30 - 09:50	0088	Machine Learning for barchan dune detection	Esteban Andres Cúñez Benalcazar
09:50 - 10:10	0119	Interfacial Oscillations in Bidisperse Beds	Vinícius Oliveira
10:10 - 10:30	0185	Chordal Measurement of Phase Fraction Distribution in Stratified Flow pattern in Dense-Gas/Liquid Pipe flow Via Gamma-Ray Densitometry.	Cristhian Alvarez Pacheco

Session: FLMR - Multi-phase Flow - MON-2 ARV 4

Chair: Juan Pablo de Lima Costa Salazar (UFSC)

Time	Code	Title	Presenter
10:50 - 11:10	1993	Controlling the relaxation and breakup of initially elongated ferrofluid droplets with rotating magnetic fields	Arthur Guilherme
11:10 - 11:30	2039	STUDY OF THE FLUID DYNAMIC BEHAVIOR OF THE PROCESS OF DESALINATION BY REVERSE OSMOSIS FOR DIFFERENT SPACER GEOMETRIES.	GILSOMARO BARBOSA DE MELO SILVA Gil
11:30 - 11:50	0355	Identification and Classification of Leaks in Dense-Gas/Liquid Pipe Flow through Pressure Signature Analysis	Carlos Mauricio Ruiz Diaz
11:50 - 12:10	0511	EXPERIMENTAL INVESTIGATION OF HORIZONTAL TWO-PHASE SLUG FLOW WITH HIGH DENSITY GASES	Bruna Patricia Naidek

Session: FLMR - Multi-phase Flow - MON-3 ARV 4

Chair: Emilio Paladino (UFSC)

Time	Code	Title	Presenter
13:30 - 13:50	0528	Numerical and experimental study of Flushing process in a horizontal pipe using miscible fluids	Elcilane Araújo de Freitas
13:50 - 14:10	0551	Experimental and Theoretical Characterization of Thermophysical Properties and Electrical Permittivity of CO2 and Dodecane Mixtures	Erich Takenore Tiuman
14:10 - 14:30	2117	Water Model and Numerical Simulation of a Single Strand Slab Caster Tundish	Pedro Domingos
14:30 - 14:50	0690	Numerical Investigation of Droplet Deformation and Breakup in T-Junction Microfluidics	Juan Linhares Barbosa

Tuesday 05 - Room SAMBAQUI 1

Session: FLMR - Computational Fluid Dynamics - TUE-1 SAM 1

Chair: Mateus Grassano Lattari (UFSC)

Time	Code	Title	Presenter
08:00 - 08:20	0664	ELLIPTIC GRID GENERATION USING PARALLEL COMPUTING	Juan Carlos Assis da Silva
08:20 - 08:40	0697	A CFD Study on Airfoils Performance in Formula SAE	Josue Lima de Camargo
08:40 - 09:00	0751	A comparative study of a transition model with a full turbulence model on the aerodynamic analysis of a wind turbine airfoil	Anderson de Moura Ribeiro
09:00 - 09:20	0802	ASSESMENT OF LARGE EDDY SIMULATION (LES) SUB-GRID SCALE MODELS ACCOUNTING FOR COMPRESSIBLE HOMOGENEOUS ISOTROPIC TURBULENCE	Jhon Cordova
09:20 - 09:40	0803	FLUID DYNAMIC SIMULATIONS OF MACH AND REGULAR REFLECTIONS IN OBLIQUE SHOCK-WAVE CONFIGURATIONS USING ADAPTIVE MESH REFINEMENT	René Sebastian Valencia Ramírez
09:40 - 10:00	0819	Reducing initial computational cost of complex turbulent flows simulations by using recorded data from a existent simulation	Johnatas Freitas

Session: FLMR - Computational Fluid Dynamics - TUE-2 SAM 1

Chair: Juan Pablo de Lima Costa Salazar (UFSC)

Time	Code	Title	Presenter
10:30 - 10:50	0865	Strategies to evaluate the results of a CFD-based solution to investigate the aeroelastic dynamics of a typical section airfoil	Bianca Taís Visoná Carnielo
10:50 - 11:10	0879	NUMERICAL INVESTIGATION FOR SUPERSONIC GAS SEPARATOR WITH CURVED NOZZLE	Denis Fernando Gregório Júnior
11:10 - 11:30	0893	Particle Swarm Optimization and Tikhonov Regularization for source identification over complex regions	Juan Pablo de Lima Costa Salazar
11:30 - 11:50	0940	CFD simulations for obtaining steady-state hydrodynamic parameters of a five-degree-of-freedom ROV with jet propulsion	Arthur Sena Marques
11:50 - 12:10	0951	Initial Study on Water Jet Propulsion for Naval Vessels: Obtaining Parameters through CFD Simulations	Hélio Valdevieso Catarin

Session: FLMR - Computational Fluid Dynamics - TUE-3 SAM 1

Chair: Juan Pablo de Lima Costa Salazar (UFSC)

Time	Code	Title	Presenter
13:30 - 13:50	0975	SEPARATION EFFICENCY ANALYSIS OF A SUPERSONIC SEPARATOR NOZZLE WITH CENTRAL BODY	Thomaz Faccioli
13:50 - 14:10	0976	A Comparative study of neutral atmospheric boundary layer flow and dispersion using non-standard RANS models in OpenFoam and Ansys Fluent	Juan Pablo de Lima Costa Salazar
14:10 - 14:30	0980	Steady-state hydrodynamic model of a underwater towed vehicle	Giovanna Ambrósio de Souza
14:30 - 14:50	1008	A COMPARISON BETWEEN SIMILARITY SOLUTION AND EXPERIMENTAL DATA OF INCOMPRESSIBLE PLANAR MIXING LAYER	Mateus Alves Ferreira

Session: FLMR - Computational Fluid Dynamics - TUE-4 SAM 1

Chair: Juan Pablo de Lima Costa Salazar (UFSC)

Time	Code	Title	Presenter
14:50 - 15:10	1061	A COMPARISON BETWEEN POROUS AND FREE-FLOW MEDIA USING THE FINITE ELEMENT METHOD TO SOLVE THE GENERALIZED DARCY/FORCHHEIMER EQUATION	João Paulo Innocente de Souza
15:10 - 15:30	1076	Analysis of the effect of perturbations imposed on the supersonic flow over a cylinder through direct numerical simulations	Allan Rodrigo Souza
15:30 - 15:50	1169	Analysis of wave absorption strategies for CFD simulation using OpenFOAM	Samuel Gonçalves
15:50 - 16:10	1183	ON THE APPLICATION OF PHYSICS-INFORMED NEURAL NETWORKS IN THE MODELLING OF ROLL WAVES	Bruno Fagherazzi

Tuesday 05 - Room ARVOREDO 4

Session: FLMR - Instrumentation and Experiments - TUE-1 ARV 4

Chair: Robert Jäckel (UFRJ)

Time	Code	Title	Presenter
08:00 - 08:20	0277	Development of a Marine Composite Propeller	Felipe Santos de Castro
08:20 - 08:40	0537	Particle tracking velocimetry (PTV) measurement technique for a experimental investigation of a surrounding air behaviour in ethanol spray development	Guenther Krieger Filho
08:40 - 09:00	0590	Statistical features and transition dynamics of coherent organizational states in turbulent pipe flow at moderate Reynolds numbers	Robert Jäckel
09:00 - 09:20	0721	Flow over static smooth circular cylinder in wind tunnel	Douglas Neves Nascentes
09:20 - 09:40	0765	Performance of a tube bundle flow straightener on velocity profile asymmetry reduction in a wind tunnel facility	Matheus Damacena
09:40 - 10:00	0916	ANALYSIS OF THE FREE END FLOW ON THE BISTABILITY PHENOMENON AFTER TWO SIDE BY SIDE FINITE CYLINDER WITH MID ASPECT RATIO	Marcos Woyciekoski

Session: FLMR - Instrumentation and Experiments TUE-2 ARV 4

Chair: Talita Possamai (UFSC)

Time	Code	Title	Presenter
10:30 - 10:50	1260	ANALYSIS OF THE FEASIBILITY OF FORD CUPS DEVELOPED THROUGH ADDITIVE MANUFACTURING BY FUSED FILAMENTS FABRICATION IN ABS AND PLA	Lucas Carvalho
10:50 - 11:10	1519	CONVECTIVE PATTERNS IN HELE-SHAW FLOWS DRIVEN BY DENSITY GRADIENTS AND CHEMICAL COMPOSITION CHANGES	Bernardo Alberto Marcussi
11:10 - 11:30	1545	The VisualEFM.jl package for wind tunnel studies of pedestrian level wind using sand erosion technique	Gabriel Borelli Martins
11:30 - 11:50	1657	FLOW RATE MEASUREMENT OF TWO-PHASE FLOW IN DIFFERENT PATTERNS WITH A SINGLE THROTTLE DEVICE USING PgNN	Tiago Francisconi Borges Camargo
11:50 - 12:10	2399	INVESTIGATING INTERNAL FLOW AND THE INFLUENCE OF INTERNAL MIXERS ON THE USEPA DYNAMIC FLUX CHAMBER FOR ODORANT COMPOUND EMISSIONS	Laize Nalli de Freitas

Tuesday 05 - Room RIBEIRÃO

Session: FLMR - Multi-phase Flow - TUE-2 RIB

Chair: Mateus Grassano Lattari (UFSC)

Time	Code	Title	Presenter
10:30 - 10:50	2058	Identification of the flow pattern from the experimental pressure signal in horizontal pipes carrying two-phase flows	Daniely Amorim das Neves
10:50 - 11:10	0654	EXPERIMENTAL STUDY OF THE TRANSIENT GAS-LIQUID FLOW THROUGH AN ORIFICE PLATE USING HIGH SPEED CAMERA AND DIFFERENTIAL PRESSURE MEASUREMENT	Emilio Paladino
11:10 - 11:30	0963	Boundary integral simulations based on the vortex-sheet formalism for the discretization of sharp droplet interfaces in Hele-Shaw cells	Rafael Menezes de Oliveira
11:30 - 11:50	0970	A model to improve the control of the liquid injection velocity in a lazy-wave riser	Gabriela Pereira Toledo

Session: FLMR - Multi-phase Flow - TUE-3 RIB

Chair: Rigoberto Morales (UTFPR)

Time	Code	Title	Presenter
13:30 - 13:50	1108	A SLUG FLOW MODEL WITH CONCAVE INTERFACE FOR GAS-LIQUID FLOW IN HORIZONTAL PIPES	Michael Anthony Mendes
13:50 - 14:10	1349	The influence of pipe diameter on liquid film features in vertical downward annular flow	Ana Luiza Beltrão Santana
14:10 - 14:30	1475	Classification of flow patterns in air-water flows using confocal chromatic microscopy	Fernando Neves Quintino dos Santos
14:30 - 14:50	1547	Influence of Hydrate-Like Particles in Air-Water Gas-Liquid Stratified Flow Pattern	Vitor Otávio Ochoski Machado

Session: FLMR - Multi-phase Flow - TUE-4 RIB

Chair: Rigoberto Morales (UTFPR)

Time	Code	Title	Presenter
14:50 - 15:10	1561	COMPARISON BETWEEN EXPERIMENTAL PRESSURE DROP AND PREDICTIONS BY DIFFERENT SLUG UNIT CELL APPROACHES FOR HORIZONTAL AIR-SHEAR THINNING FLUID FLOW	Rafael Cordebela
15:10 - 15:30	1759	Destabilization of water-oil emulsion by drop interface deformation	Talita Botti
15:30 - 15:50	0293	A comparison of droplet breakage in W/O emulsion flow induced by pumping and gas pressurization	Murilo Zucatelli Elias
15:50 - 16:10	0299	Pressure drop analysis in emulsions flow	Ligia Franco

Wednesday 06 - Room SAMBAQUI 1

Session: FLMR - Computational Fluid Dynamics - WED-1 SAM 1

Chair: Jeferson Avila Souza (FURG)

Time	Code	Title	Presenter
08:00 - 08:20	1214	NUMERICAL MODELLING AND SIMULATION OF MEMBRANES FOR SEPARATING GASES IN SUPERCRITICAL STATE	Flávio Silva Ferro
08:20 - 08:40	1323	Investigation of the influence of a highly permeable layer on the transverse permeability determination of RTM fibrous reinforcements	Gustavo Pereira
08:40 - 09:00	1420	On use of Large-Eddy Simulation and OpenFOAM for wind flow around bridge deck problems	José Emanuel da Silva Montiel
09:00 - 09:20	1458	Numerical study of the influence of the distance between the inlet boundary condition and the obstacle in external flow	Cleberson Matos
09:20 - 09:40	1538	Validation of a simulation model to predict the flow around cylinders in different arrangements	Pedro Dallabrida
09:40 - 10:00	0719	Evaluation of shear-thinning and shear-thickening fluids applied for enhanced oil recovery in heterogeneous porous medium	Ayrton Cavallini Zotelle

Session: FLMR - Computational Fluid Dynamics - WED-2 SAM 1

Chair: Oscar Mauricio Hernandez Rodriguez (USP)

Time	Code	Title	Presenter
10:30 - 10:50	1589	Turbulent Viscosity Model Assessment for the 1D Numerical Simulations of Vertical Annular Flows	Angela Nieckele
10:50 - 11:10	1592	MACHINE LEARNING-BASED REDUCED-ORDER MODELS FOR BURGERS AND SHALLOW-WATER EQUATIONS	Pedro Roberto Barbosa Rocha
11:10 - 11:30	1687	Numerical simulation of ventilation in subway car using CFD open-source code	Amanda Sayuri Oizuni
11:30 - 11:50	1690	Pore-scale flow prediction using physics informed neural networks	Pedro Calderano
11:50 - 12:10	1985	Numerical simulation of exhaustion and ventilation systems in an underground subway station in Brazil	Beatriz Cortez Rodriguez dos Santos

Session: FLMR - Computational Fluid Dynamics - WED-3 SAM 1

Chair: Cesar J. Deschamps (UFSC)

Time	Code	Title	Presenter
13:30 - 13:50	2001	Computational Experiments and Testing of a New Distributed Memory Unstructured CFD Solver Developed with Chapel	Fábio Malacco Moreira
13:50 - 14:10	2056	MESH GENERATION METHODOLOGY FOR NUMERICAL SIMULATION OF FLOW WITHIN MULTILOBE PROGRESSING CAVITY PUMPS	Tales Dmitri Araujo Lopes
14:10 - 14:30	2194	DESIGN OPTIMIZATION OF SOURCES IN FLUID FLOW SYSTEMS USING COMPUTATIONAL FLUID DYNAMICS-BASED ADJOINT METHOD	Javier Aliaga Rivera
14:30 - 14:50	2196	Numerical simulation of compressible and incompressible Newtonian flows using a total Lagrangian position-based finite element formulation	Péricles Rafael Pavão Carvalho

Session: FLMR - Computational Fluid Dynamics WED-4 SAM 1

Chair: Cesar J. Deschamps (UFSC)

Time	Code	Title	Presenter
14:50 - 15:10	2260	Application of the IMERSPEC methodology for simulation of two-dimensional flows over vertical axis turbines	Lucas Monteiro
15:10 - 15:30	2357	Numerical Investigation of the Aerodynamics and Aeroacoustics Effects of a Zigzag Tripping on an Aeronautical Propeller	Gabriel Caldeira Vicente
15:30 - 15:50	2359	BIO-INSPIRED SMALL WIND TURBINES USING FLYING SEEDS GEOMETRY	Ramiro Bertolina
15:50 - 16:10	2400	CONTRIBUTIONS TO THE NUMERICAL SIMULATION OF FLOWS IN 180° CURVES AND PORTABLE WIND TUNNELS	Matheus de Araujo Siqueira
16:10-16:30	0067	The study of the development of aircraft wakes near a plane through a Lagrangian approach	Marília Vidille

Wednesday 06 - Room ARVOREDO 4

Session: FLMR - Multi-phase Flow - WED-1 ARV 4

Chair: Victor Wagner Freire de Azevedo (UFERSA)

Time	Code	Title	Presenter
08:00 - 08:20	0902	Onset of growth of Saffman-Taylor instabilities in a three-layer, rectangular Hele-Shaw flow	Carlos Roberto Hollanda Lopes
08:20 - 08:40	1073	Study of the influence of the film height on near interface turbulent structure in gas-liquid stratified via DNS	Victor Wagner Freire de Azevedo
08:40 - 09:00	2252	FLUIDIZATION CURVES AND ANALYSIS OF POWER SPECTRAL DENSITY OF POLYPROPYLENE PARTICLES	Marcelo Gotardo
09:00 - 09:20	2258	Numerical simulation of terminal velocity of settling spherical particles in water	Matheus Pacini
09:20 - 09:40	2353	Numerical study on the diffusion characteristics of oil leakage from submarine buried pipelines	Zexin Xu
09:40 - 10:00	2354	Hydrodynamic effects over the self assembly of diblock copolymer melts	Victor Carlos Teixeira

Thursday 07 - Room SAMBAQUI 1

Session: FLMR - Theoretical and Analytical Modeling & Computational Fluid Dynamics - THU-1 SAM 01

Chair: Juan Pablo de Lima Costa Salazar (UFSC)

Time	Code	Title	Presenter
08:00 - 08:20	0181	Pressure-driven flow of an electrically conducting incompressible layer of fluid in a tiny channel bounded by porous and impermeable walls	Érick Marcelino Miranda
08:20 - 08:40	1625	Optimizing Contaminant Source Identification with MLP Neural Network	Guido Fraga Mares Guia de Carvalho
08:40 - 09:00	1766	INTEGRAL TRANSFORM SOLUTION OF INCOMPRESSIBLE FLOW WITH TRANSIENT PRESSURE GRADIENT	Krishina Dasa Alves Da Costa
09:00 - 09:20	0192	Three dimensional Finite Element Two-Phase Flow Simulation using a front tracking method	Daniel Barbedo Vasconcelos Santos
09:20 - 09:40			
09:40 - 10:00			

Session: FLMR - Rheology and Non-Newtonian Fluid Mech. - THU-2 SAM 1

Chair: Leandro Franco de Souza (USP)

Time	Code	Title	Presenter
10:30 - 10:50	1123	Predicting Friction Factors in Turbulent Flow of Herschel-Bulkley Fluids: A Radial Basis Function Neural Network Approach	Glaucio Kenji Matoba
10:50 - 11:10	1566	Slot Die Coating of Thixotropic Liquids	Danmer Maza
11:10 - 11:30	1619	Influence of a magnetic field induced by a conducting wire on the flow patterns and heat transfer of thermosensitive ferrofluid inside a square cavity	Adriano Rosa
11:30 - 11:50	1636	Laminar Separation Bubbles Analysis of Giesekus Fluid Flow	Beatriz Liara Carreira
11:50 - 12:10	1843	Stability Analysis of Oldroyd-B and Giesekus Fluids in a Planar Jet Flow	Rafael de Lima Sterza

Session: FLMR - Rheology and Non-Newtonian Fluid Mechanics - THU-3 SAM 1

Chair: Diogo Elias Vinha Andrade (UFRGS)

Time	Code	Title	Presenter
13:30 - 13:50	0220	RHEOLOGICAL CHARACTERIZATION OF NON-COLLOIDAL SUSPENSIONS WITH NON-NEWTONIAN BULK: INVESTIGATING THE IMPACT OF MICROPARTICLES	Emiliano Bocardo da Cruz
13:50 - 14:10	0370	INFLUENCE OF GRAPHENE ON THE RHEOLOGICAL PROPERTIES OF WAXY OIL	rufino epesse
14:10 - 14:30	0497	Direct Numerical Simulation of Turbulent Flow of Power-Law Fluids in Annular Pipe	Lucas L. Palladino
14:30 - 14:50	0737	Verification of a Viscoelastic LPTT Fluid Flow Code by the Method of Manufactured Solutions	Andreza Beatriz

Friday 08 - Room SAMBAQUI 1

Session: FLMR - Flow Induced Vibration - FRI-1 SAM 1

Chair: Sergio Möller (UFRGS)

Time	Code	Title	Presenter
08:00 - 08:20	1226	A system engineering based methodology for digital twins implementation	Yasmin Gaudard
08:20 - 08:40	0404	Numerical analysis of crossflow over one and two rows of cylinders	Roberta Fatima Neumeister
08:40 - 09:00	1089	Investigating the Parameters of a Spar Model Platform Through Still Water Decay Tests Using Low-Cost IMU Readings	Aline Leal de Lima Gontarski
09:00 - 09:20	1287	WAKE INTERACTION BETWEEN TWO CIRCULAR SLENDER CYLINDERS TANDEM PLACED WITH SMALL SPACING RATIOS	Sergio Möller
09:20 - 09:40	1881	Transformer-based models for predictive simulations of vortex-induced vibrations	Gabriel Mario Guerra Bernadá
09:40 - 10:00	1968	Vortex-Induced Motion of a Multicolumn Floating Offshore Wind Turbine Platform: a study comparing two modelling approaches - CFD and a Reduced Order Model	Éverton Lins de Oliveira

Session: FLMR - Industrial Applications and Turbomachinery - FRI-2 SAM 1

Chair: Juan Pablo de Lima Costa Salazar (UFSC)

Time	Code	Title	Presenter
10:30 - 10:50	0642	The influence of vaneless annular passage in the performance of a centrifugal compressor with vaned diffuser	Rafael Eller
10:50 - 11:10	0646	Combined Screening Sensitivity Analysis Applied to One-dimensional Model of a High-Performance S-CO2 Centrifugal Compressor	Fernando Henrique Tiezzi Vergara
11:10 - 11:30	2397	TEMPORAL EVOLUTION OF SUSPENTION POTENTIAL AROUND SUCCESSIVE STOCKPILES USING THE OIL-FILM TECHNIQUE	Cristina Lima de Morais
11:30 - 11:50	2398	ANALYSIS OF EMISSIONS OF ODORANT COMPOUNDS WITH CHANGES TO THE INTERNAL SETUP OF THE USEPA DYNAMIC FLUX CHAMBER	Philipe Uhlig Siqueira
11:50 - 12:10			

BIO
Bioengineering

Monday, Dec 4	
Time	Sessions
9:10 -10:30	MON-1 SAM 3
10:30 - 10:50	Coffee break
10:50 - 12:10	MON-2 SAM 3
12:10 - 13:30	lunch
13:30 - 14:50	MON-3 SAM 3
14:50 - 16:10	MON-4 SAM 3
16:10 - 17:00	Coffee break & Poster presentations

Tuesday, Dec 5	
Time	Sessions
8:00 - 10:00	
10:00 - 10:30	Coffee break
10:30 - 12:10	
12:10 - 13:30	lunch
13:30 - 14:50	
14:50 - 16:10	
16:10 - 17:00	Coffee break & Poster presentations

Wednesday, Dec 6	
Time	Sessions
8:00 - 10:00	
10:00 - 10:30	Coffee break
10:30 - 12:10	
12:10 - 13:30	lunch
13:30 - 14:50	
14:50 - 16:10	
16:10 - 17:00	Coffee break & Poster presentations

Thursday, Dec 7	
Time	Sessions
8:00 - 10:00	
10:00 - 10:30	Coffee break
10:30 - 12:10	
12:10 - 13:30	lunch
13:30 - 14:50	THU 03 AMC
14:50 - 16:10	THU 04 AMC
16:10 - 17:00	Coffee break & Poster presentations

Friday, Dec 8	
Time	Sessions
8:00 - 10:00	
10:00 - 10:30	Coffee break
10:30 - 12:10	
12:10 - 13:30	lunch
13:30 - 14:50	FRI-3 ARV 4
14:50 - 16:10	FRI-4 ARV 4

Bioengineering
ORAL PRESENTATIONS

Monday 04 - Room SAMBAQUI 3

Session: BIO - Biomechanics - MON-1 SAM 3

Chair: Prof. Carlos Rodrigo de Mello Roesler (UFSC)

Time	Code	Title	Presenter
09:10 - 09:30	0120	Solving optimal control problems applied to neuromusculoskeletal models: a comparison between OpenSim Moco and Fmincon Solvers	Denis César Mosconi Pereira
09:30 - 09:50	0131	Bipedal human-exoskeleton model for simulations of squat-to-stand movement	Denis César Mosconi Pereira
09:50 - 10:10	0240	On the mechanics of ruptured and unruptured intracranial aneurysms: numerically assessing how different properties may affect their mechanical behavior	Iago Lessa de Oliveira
10:10 - 10:30	0667	COMPARATIVE ANALYSIS OF THE BIOMECHANICAL BEHAVIOR OF TWO TYPES OF SOLUTIONS USED FOR THE TREATMENT OF BUSH-HOFFA FRACTURES	João Marcos Guimarães Rabelo

Session: BIO - Biomechanics - MON-2 SAM 3

Chair: Prof. Thiago André Carniel (Univ. Comunitária da Região de Chapecó)

Time	Code	Title	Presenter
10:50 - 11:10	0788	Sensitivity of Donnan's model parameters to the modeling of osmotic pressure in tendons	Eduarda Bordignon Atuatti
11:10 - 11:30	0889	ACTIVATION OF BONE MASS MAINTENANCE THROUGH INTRAMEDULLARY NAIL DYNAMIZATION	Jose Renato de Oliveira e Silva Neto
11:30 - 11:50	0982	Effect of anisotropy of zirconia pins produced by additive manufacturing on the wear resistance.	Giovanna Rubo de Rezende
11:50 - 12:10	1093	EVALUATING THE VISCOELASTIC LOAD SHARE OF PORCINE KNEE LIGAMENTS	Bruno Mello Silveira

Session: BIO - Biomechanics - MON-3 SAM 3

Chair: Prof. Thiago André Carniel (Univ. Comunitária da Região de Chapecó)

Time	Code	Title	Presenter
13:30 - 13:50	1162	Formulation of a biphasic model considering Donnan's osmotic pressure for investigations of the swelling phenomenon in soft tissues	Rafael Geronimo
13:50 - 14:10	1204	Difficulties and benefits of modeling the Achilles tendon using FEM	Otávio Teixeira Pinto
14:10 - 14:30	1514	How an active orthosis interferes with the movement, muscles recruitment and activations during knee flexion-extension	Denis César Mosconi Pereira
14:30 - 14:50	1517	DESIGN OF TRANSTIBIAL PROSTHESIS BASED ON MECHANICAL METAMATERIAL	GUILHERME LEBRAO

Session: BIO - Biomechanics - MON-4 SAM 3

Chair: Dra. Patrícia Ortega Cubillos (UFSC)

Time	Code	Title	Presenter
14:50 - 15:10	1784	Assessing the Joint Misalignment Effects in Rehabilitation Robotics: A Case Study	Adriano Siqueira
15:10 - 15:30	1951	COMPARATIVE ANALYSIS OF COMFORT PARAMETERS OF ELEVATORS AFTER INTEGRAL MODERNIZATION PROJECTS	Herbert Gomes
15:30 - 15:50	1958	Assessment of neuromuscular fatigue, torque reduction, and velocity performance following FES intervention	Maria Jose Burbano
15:50 - 16:10			

Thursday 07 - Room ARMAÇÂO

Session: BIO - Implants, Orthoses and Prostheses - THU-3 AMC

Chair: Prof. Eduardo Lenz Cardoso (UDESC)

Time	Code	Title	Presenter
13:30 - 13:50	2380	CFD analysis of flow and hemocompatibility of straight-bladed impeller Ventricular Assist Devices	Rodrigo Lima Stoeterau
13:50 - 14:10	2421	Fabrication of multi-scale periodic line-like structures on different implant materials using a two- beam interference setup equipped with a pico-second laser source	Bruno Alexandre Pacheco de Castro Henriques
14:10 - 14:30	1265	A NUMERICAL ANALYSIS OF THE BIOMECHANICS OF THE THORACOLUMBAR SPINE AND THE EFFECT OF VERTEBRAL BODY TETHERING INSTRUMENTATION	Rafael Oliveira
14:30 - 14:50	1326	FINITE ELEMENT ANALYSIS OF THE MECHANICAL STRUCTURE OF AN HYBRID ORTHOSIS	Francielle Paz

Session: BIO - Biofluids Dynamics e Bioheat Transfer - THU-4 AMC

Chair: Prof. Saulo Guths (UFSC)

Time	Code	Title	Presenter
14:50 - 15:10	1919	Development of an Instrumented Object to be used in a new Upper Limb Prosthesis Training Protocol	Pedro de Figueiredo Abissamra
15:10 - 15:30	1244	Influence of thermal contrast during dynamic thermography on a deep-learning-based estimation of breast tumour parameters	Mateus Felipe Benicio Moraes
15:30 - 15:50	1671	Numerical simulation of drug transport from Drug-Eluting stents through the arterial wall with an atheroma plaque	Rachel Manhães de Lucena
15:50 - 16:10			

Friday 08 - Room ARVOREDO 4

Session: BIO - Biofluids Dynamics e Bioheat Transfer - FRI-3 ARV 4

Chair: Prof. Saulo Guths (UFSC)

Time	Code	Title	Presenter
13:30 - 13:50	0297	DEVELOPMENT OF A METHODOLOGY FOR UTILIZING INFRARED IMAGING TO ANALYZE THERMAL RESPONSE AND DIAGNOSE BREAST CANCER	Thomas Holzmann
13:50 - 14:10	0599	Development of a Device for Iliac Vein Clot Removal	Vitória Bento Botelho
14:10 - 14:30	0635	Parameter identification in bioheat transfer models using the transitional Markov Chain Monte Carlo method	Eduardo Cunha Classe
14:30 - 14:50			

Session: BIO - Medical Devices FRI-4 ARV 4

Chair: Prof. Carlos Rodrigo de Mello Roesler (UFSC)

Time	Code	Title	Presenter
14:50 - 15:10	0379	Analysis on the effect of connecting links in the foreshortening of a bioabsorbable stent for the treatment of Aorta Coarctation in Children: a Finite element study	Bruno Agostinho Hernandez
15:10 - 15:30	2251	Influence of the screw raw material and surface topography on mechanical behavior of Morse Taper Dental implant systems	Rafaela Lopes da Silva
15:30 - 15:50	0694	DEVELOPMENT OF AN APPARATUS FOR SIMULTANEOUS MEASUREMENT OF WHOLE-BODY AND HAND-ARM VIBRATION	Herbert Martins Gomes
15:50 - 16:10			

AERO
Aerospace Engineering

Monday, Dec 4	
Time	Sessions
9:10 -10:30	MON-1 ARV 2
10:30 - 10:50	Coffee break
10:50 - 12:10	MON-2 ARV 2
12:10 - 13:30	lunch
13:30 - 14:50	MON-3 ARV 2
14:50 - 16:10	MON-4 ARV 2
16:10 - 17:00	Coffee break & Poster presentations

Tuesday, Dec 5	
Time	Sessions
8:00 - 10:00	
10:00 - 10:30	Coffee break
10:30 - 12:10	
12:10 - 13:30	lunch
13:30 - 14:50	TUE-3 JUR
14:50 - 16:10	TUE-4 JUR
16:10 - 17:00	Coffee break & Poster presentations

Wednesday, Dec 6	
Time	Sessions
8:00 - 10:00	WED-1JUR
10:00 - 10:30	Coffee break
10:30 - 12:10	
12:10 - 13:30	lunch
13:30 - 14:50	WED-3 ARV 4
14:50 - 16:10	WED-4 ARV 4
16:10 - 17:00	Coffee break & Poster presentations

Thursday, Dec 7	
Time	Sessions
8:00 - 10:00	THU-1 ARV 4
10:00 - 10:30	Coffee break
10:30 - 12:10	THU-2 ARV 4
12:10 - 13:30	lunch
13:30 - 14:50	THU-3 ARV 4
14:50 - 16:10	THU-4 ARV 4
16:10 - 17:00	Coffee break & Poster presentations

Friday, Dec 8	
Time	Sessions
8:00 - 10:00	
10:00 - 10:30	Coffee break
10:30 - 12:10	
12:10 - 13:30	lunch
13:30 - 14:50	FRI-3 SAM 1
14:50 - 16:10	FRI-4 SAM 1

Aerospace Engineering
ORAL PRESENTATIONS

Monday 04 - Room ARVOREDO 2

Session: AERO - Propulsion - MON-1 ARV 2

Chair: Daniel S. Souza

Time	Code	Title	Presenter
09:10 - 09:30	0118	Numerical Simulation of Ethanol and Hydrogen Peroxide Combustion in a Rocket Chamber	Luiz Henrique Schaffazick
09:30 - 09:50	0394	Modeling an electrospray propulsion system using an open-source Smoothed Particle Hydrodynamics method	Marco Antonio Gontijo Piantino
09:50 - 10:10	1426	OPTIMAL IMAGE PROCESSING FOR PROPER ORTHOGONAL DECOMPOSITION OF THE OSCILLATORY METHANE JET DIFFUSION FLAMES DATASET	Davi Saadi de Almeida Lettieri
10:10 - 10:30	0414	Performance parameters, economic viability and sustainability of hybrid rocket propellants: a systematic review	Paulo Brandão

Session: AERO - Propulsion - MON-2 ARV 2

Chair: Daniel S. Souza

Time	Code	Title	Presenter
10:50 - 11:10	0637	Aerodynamic performance analysis of a propeller projected for low-speed unmanned aerial vehicles	Luís Gonçalves
11:10 - 11:30	0675	Numerical Analysis 1D of a 5 kN Liquid Propellant Rocket Engine Combustion Chamber Using Ethanol/LOX	Luiz Henrique Schaffazick
11:30 - 11:50	0960	SUSTAINABLE ALTERNATIVE FUELS: A DEVELOPMENT OVERVIEW AND PERFORMANCE EVALUATION ON AERONAUTICAL ENGINES	Gabriel Rocha Pinto
11:50 - 12:10	1025	Numerical Characterization and Analysis of the Chemical Kinetics of the Mixture of Silane, Hydrogen and Air for Supersonic Combustion Applications	Rafael Maia Altafim

Session: AERO - Propulsion - MON-3 ARV 2

Chair: Guilherme Ribeiro

Time	Code	Title	Presenter
13:30 - 13:50	1036	Scramjet thrust analysis based on the variation of its compression section angle	Laura Carolina Monteiro dos Santos Rodrigues da Silva
13:50 - 14:10	1366	Modeling dynamical systems from low-sampling data	Davi Saadi de Almeida Lettieri
14:10 - 14:30	0400	Numerical Study of a Regenerative Cooling Jacket in a Scramjet Inlet	Marco Antonio Santos
14:30 - 14:50	1464	Analytical and Numerical Determination of Acoustic Modes of 25 kN Liquid Propellant Rocket Engine	Anieli Schrammel

Session: AERO - Propulsion - MON-4 ARV 2

Chair: Talita Possamai

Time	Code	Title	Presenter
14:50 - 15:10	1717	On the Prediction of Propeller Tonal Noise with Machine Learning	Filipe Dutra da Silva
15:10 - 15:30	1931	Preliminary Design of a 25 kN Pressure-Fed Liquid Propellant Rocket Engine	Anieli Schrammel
15:30 - 15:50	2133	COMBUSTION SIMULATION OF A PARAFFIN BASED SOLID FUEL WITH GASEOUS OXYGEN INSIDE A HYBRID ROCKET MOTOR	Paulo Gabriel Cunha Martins
15:50 - 16:10			

Tuesday 05 - Room JURERÊ

Session: AERO - Flight Dynamics - TUE-3 JUR

Chair: Edemar Morsch Filho

Time	Code	Title	Presenter
13:30 - 13:50	0179	Quadrotor Fault Detection and Diagnosis using Multi-class Support Vector Machine	Yohan diaz
13:50 - 14:10	0676	PASSIVE FAULT TOLERANT CONTROL ON QUADROTORS USING A ROBUST SLIDING MODE CONTROL	Yohan diaz
14:10 - 14:30	1535	Development of a subscale aircraft of a Cessna 177	Clécio Fischer
14:30 - 14:50	2314	Identification of aerodynamic coefficients of a flexible fixed-wing aircraft using deep learning	Vitor Fernandes

Session: AERO - Aerospace Structures - TUE-4 JUR

Chair: Fernanda Signor

Time	Code	Title	Presenter
14:50 - 15:10	0352	Structural design and optimization of a wingbox with truss-based modular structures	Pedro Davim Bastos
15:10 - 15:30	1087	Computational tool for eigenvalues analysis of wind turbine blades	Júlia da Silva Maschietto
15:30 - 15:50	1568	Structural optimization of the fuselage hull of a composite ground effect vehicle	Felipe Araújo Bortolete
15:50 - 16:10	2035	Conceptual design of the thrust vector control system for a hybrid rocket engine	Patrick Christian de Melo

Wednesday 06 - Room ARVOREDO 4

Session: AERO - Aerodynamics - WED-3 ARV 4

Chair: William Wolf

Time	Code	Title	Presenter
13:30 - 13:50	0213	A Study of Improved Limiter Formulations for Second-Order Finite Volume Schemes Applied to Unstructured Grids	Frederico Bolsoni Oliveira
13:50 - 14:10	0221	Computational Analysis of the effect of Wavy Leading Edge on Stabilizer	Pablo Gonzalez-DeGreiff
14:10 - 14:30	0223	Investigation of shock-boundary layer interactions in a supersonic turbine cascade under different inlet Mach numbers	Hugo Felippe da Silva Lui
14:30 - 14:50	0252	NUMERICAL ANALYSIS OF THE FLOW OVER AN E-VTOL CONCEPT VEHICLE	Odenir de Almeida

Session: AERO - Aerodynamics WED-4 ARV 4

Chair: Diogo Pitz

Time	Code	Title	Presenter
14:50 - 15:10	0272	VALIDATION AND VERIFICATION OF AN OPEN-SOURCE CFD CODE FOR THE AERODYNAMICS SOLUTION OF AIR AND GROUND VEHICLES	Guilherme Espíndola
15:10 - 15:30	0274	THE DEVELOPMENT OF A DIDACTIC PLATFORM FOR WIND TUNNEL EXPERIMENTS IN APPLIED AERODYNAMICS	Rafael Dias
15:30 - 15:50	0371	REVIEW OF THE TRANSITION PHENOMENA OVER SWEPT WING	Odenir de Almeida
15:50 - 16:10	0382	Preliminary aerodynamics analysis of a three-dimensional bump at subsonic and supersonic flow	John J Vaca-Rios

Wednesday 06 - Room JURERÊ

Session: AERO - Aerodynamics - WED-1 JUR

Chair: Gustavo Halila

Time	Code	Title	Presenter
08:00 - 08:20	1245	Numerical Study of Airfoil in Near-Stall Conditions	Renan Trevizan de Melo
08:20 - 08:40	1790	DESTRUCTION AND REGENERATION PROCESS OF A LAMINAR SEPARATION BUBBLE UNDER FORCING CONDITIONS	omar elias horna pinedo
08:40 - 09:00	1895	Parametric Study of an Experimental Rocket's Drag in Transonic Flow	Vinicius Alves
09:00 - 09:20	1906	Numerical and experimental analysis of rotating blunt bodies trajectory at sea-level conditions.	Geovanna Borges
09:20 - 09:40	1927	Validation of Inviscid CFD Analysis for the Generic Future Fighter	Daniel Ferreira
09:40 - 10:00	2028	Aerodynamic Analysis Applied to a Hypersonic Vehicle Type Waverider Through CFD	Rolando Guzmán-Bohórquez

Thursday 07 - Room ARVOREDO 4

Session: AERO - Aerodynamics - THU-1 ARV 4

Chair: João Luiz Azevedo

Time	Code	Title	Presenter
08:00 - 08:20	2071	Unsteady Aerodynamic Analysis of an Emulated Wandering Albatross	Oscar Ricardo Sandoval Rodriguez
08:20 - 08:40	2177	Experiments on the influence of bump on the boundary layer transition.	Lenz Jossue Lopez Lazaro
08:40 - 09:00	2211	Aerodynamic validation of vortex-based non-linear methods with leading-edge vortex shedding	Tiago Monteiro
09:00 - 09:20	2271	Experimental investigation of the boundary layer transition over surface irregularities	Marcello Augusto Faraco de Medeiros
09:20 - 09:40	2275	STABILITY ANALYSIS OF BOUNDARY LAYER FLOW IN HIGH ASPECT RATIO GAP UNDER BYPASS TRANSITION CONDITIONS.	Marcello Augusto Faraco de Medeiros
09:40 - 10:00	2296	Numerical Analysis of Boundary Layer Transition to Turbulence in Flow Past an Asymmetric Gap	Marcello Augusto Faraco de Medeiros

Session: AERO - Aerodynamics - THU-2 ARV 4

Chair: Marcello Medeiros

Time	Code	Title	Presenter
10:30 - 10:50	0046	EVALUATION OF CONVERGENCE OF VORTEX PANEL METHOD FOR OBTAINING AERODYNAMIC COEFFICIENTS FOR NACA 0012 AIRFOIL	VICTOR SANTORO SANTIAGO
10:50 - 11:10	0134	Extracting coherent structures from dynamic stall via empirical mode decomposition and dynamic mode decomposition	Lucas Feitosa de Souza
11:10 - 11:30	0141	A study of boundary layer developing under adverse pressure gradients for a NACA0012 airfoil at high angle of attack.	William Wolf
11:30 - 11:50	0144	Simulation of Hypersonic Flows in Thermochemical Non-Equilibrium Conditions: Influence of the Control Temperature of Park's Two-Temperature Model in the Flow Behavior	Gibson De Marchi Poltronieri
11:50 - 12:10	0168	A COMPARATIVE STUDY ON THE RADIATIVE HEAT TRANSFER FOR HYPERSONIC NONEQUILIBRIUM FLOWS OVER A CYLINDER	Farney Moreira

Session: AERO - Aerodynamics - THU-4 ARV 4

Chair: William Wolf

Time	Code	Title	Presenter
14:50 - 15:10	0906	AERODYNAMIC STUDY OF THE USE OF A TELESCOPIC WINGLET IN AN AGRICULTURE AIRCRAFT	Daniel de Paula
15:10 - 15:30	0985	Numerical investigation of splitter plates as noise reduction techniques for tandem cylinders	Filipe Dutra da Silva
15:30 - 15:50	1051	Numerical analysis of endplate drag components for a low speed aircraft	Filipe Dutra da Silva
15:50 - 16:10	1159	Effects of Freestream Flow Conditions on the Convergence History for Transitional Flow Simulations	Aline Righi

Friday 08 - Room BRAVA

Session: AERO - Aerodynamics – FRI-2 ARV 4

Chair: Gustavo Halila

Time	Code	Title	Presenter
10:30 - 10:50	0538	Characterization of intermittent extreme events in adiabatic and isothermal supersonic turbine cascades	Gabriel Yudi Ragni Hamada
10:50 - 11:10	0613	Impact of airfoil thickness on the rotational effect over wind-turbine-blade flow	Daniel SAMBAQUIpaio Souza
11:10 - 11:30	0634	AERODYNAMIC OPTIMIZATION OF WING-MOUNTED ROTOR CONFIGURATION FOR EVTOLS	Gilberto Bueno Luque Filho
11:30 - 11:50	0641	STUDY OF THE IMPACT OF HARMONIC ATUATION ON LAMINAR SEPARATION BUBBLES ON AN AIRFOIL	Elmer Gennaro

Friday 08 - Room SAMBAQUI 1

Session: AERO - Control Systems and Aeroelasticity - FRI- 3 SAM 1

Chair: Daniel S. Souza

Time	Code	Title	Presenter
13:30 - 13:50	0054	Study of a nonlinear aeroelastic model with combined SMA-based structural hysteresis and dynamic stall	Vagner Candido de Sousa
13:50 - 14:10	0147	Effects of Rational-Function Approximation Coefficients on the Aeroelastic Analysis of Transonic Flutter with CFD-Based Reduced-Order Model	Ana Cristina Neves Carloni
14:10 - 14:30	0243	PID CONTROL SYSTEM IN 3 AXES FOR STABILITY OF A MODEL AIRCRAFT IN A WIND TUNNEL	Bruno Petrocchi de Sena Azevedo
14:30 - 14:50	0296	Piezoelectric passive control for whirl-flutter presenting structural discontinuous effects	Sérvio Túlio Suenai Haramura Bastos

Session: AERO - Control Systems and Aeroelasticity - FRI- 4 SAM 1

Chair: Talita Possamai

Time	Code	Title	Presenter
14:50 - 15:10	0647	Attitude Determination and Control of a Nanosatellite Detector of Cosmic Sources of X and Gamma Rays	Matheus Soares
15:10 - 15:30	0896	Comparing classic to novel flight control approaches to fixed-wing aircraft: feedback control versus Reinforcement Learning	Joao Erick Fernandes
15:30 - 15:50	1991	Investigation of the effects of structural nonlinearities on aeroelastic LCOs	Lucas Pereira Resende
15:50 - 16:10			

MME
Materials & Manufacturing Engineering

Monday, Dec 4	
Time	Sessions
9:10 -10:30	MON-1 JOA
10:30 - 10:50	Coffee break
10:50 - 12:10	MON-2 JOA MON-2 CAM
12:10 - 13:30	lunch
13:30 - 14:50	MON-3 JOA MON-3 CAM
14:50 - 16:10	MON-4 JOA MON-4 CAM
16:10 - 17:00	Coffee break & Poster presentations

Tuesday, Dec 5	
Time	Sessions
8:00 - 10:00	TUE-1 JOA TUE-1 CAM
10:00 - 10:30	Coffee break
10:30 - 12:10	TUE-2 JOA
12:10 - 13:30	lunch
13:30 - 14:50	TUE-3 JOA
14:50 - 16:10	TUE-4 JOA
16:10 - 17:00	Coffee break & Poster presentations

Wednesday, Dec 6	
Time	Sessions
8:00 - 10:00	WED-1 JOA
10:00 - 10:30	Coffee break
10:30 - 12:10	WED-2 JOA
12:10 - 13:30	lunch
13:30 - 14:50	WED-3 JOA
14:50 - 16:10	WED-4 JOA
16:10 - 17:00	Coffee break & Poster presentations

Thursday, Dec 7	
Time	Sessions
8:00 - 10:00	THU-1 JUR
10:00 - 10:30	Coffee break
10:30 - 12:10	
12:10 - 13:30	lunch
13:30 - 14:50	THU-3 ARV 2
14:50 - 16:10	THU-4 ARV 2
16:10 - 17:00	Coffee break & Poster presentations

Friday, Dec 8	
Time	Sessions
8:00 - 10:00	FRI-1 ARV 2
10:00 - 10:30	Coffee break
10:30 - 12:10	FRI-2 ARV 2
12:10 - 13:30	lunch
13:30 - 14:50	FRI-3 SAM 3
14:50 - 16:10	FRI-4 SAM 3

Materials & Manufacturing Engineering

ORAL PRESENTATIONS

Monday 04 - Room JOAQUINA

Session: MME - Materials Characterization and Processing & Manufacturing Management - MON-1 JOA

Chair: Pablo Deivid Valle

Time	Code	Title	Presenter
09:10 - 09:30	2391	Assessment of electric field assisted mining of lanthanum from soils	Carolina Mocelin Gomes Pires
09:30 - 09:50	0282	The use of Thermography In the Detection of Breakage in Steel: Failure prevention in the tension process	Carlos Vicari
09:50 - 10:10	1900	Effect of pre-placed powders of graphene and graphite on dilution and hardness of Stellite 6 coatings processed by PTA	João Felipe Sippel
10:10 - 10:30	0026	Diagnostic of Body Shop Supply in an Automotive Industry	Maíra Andrade

Session: MME - Materials Characterization and Processing - MON-2 JOA

Chair: Pablo Deivid Valle

Time	Code	Title	Presenter
10:50 - 11:10	0235	Surface Characterization of Copper-based Bactericidal Sealant for Additive Manufactured Personal Protective Equipment	Daniel Chalhub
11:10 - 11:30	0617	Computer vision and three dimensional profilometry applied to corrosion detection in deep rolled AISI 1045 steel.	Vinicius Melo Cangussu
11:30 - 11:50	0618	Influence of curvature on residual stress measurement by X-ray diffraction at the gear tooth root	João Pedro Vieira
11:50 - 12:10	0701	COMPARATIVE STUDY OF THE RESIDUAL STRESS INDUCED BY LASER SURFACE HARDENING OF AISI 1020 AND AISI 4130 STEELS	Olga Liskevych

Session: MME - Materials Characterization and Processing - MON-3 JOA

Chair: Fabio Antonio Xavier

Time	Code	Title	Presenter
13:30 - 13:50	0763	Influence on the use of kerosene and propane as fuels on the characteristics of in-flight particles deposited by thermal spray HVOF	Sarah Anabele Silva
13:50 - 14:10	0829	Residual stress in-depth profile evolution along a gear manufacturing chain	Matheus Santos
14:10 - 14:30	0903	A SUSTAINABLE APROACH BY USING 3D PRINTING POLYLACTIC ACID PLA RESIDUES AS MATRIX OF GRAPHENE NANOCOMPOSITE	Gabriel da Cunha Cotrim
14:30 - 14:50	1024	MANUFACTURING AND CHARACTERIZATION OF A CERAMIC COMPOSITE Al2O3-ZrO2-SiCw SINTERED BY PECS	Luma Gonçalves Fraga

Session: MME - Materials Characterization and Processing - MON-4 JOA

Chair: Fabio Antonio Xavier

Time	Code	Title	Presenter
14:50 - 15:10	1080	Metal powder production by rotating electrode using laser	Gustavo Silva
15:10 - 15:30	1537	Manufacturing highly porous Ti alloys by molten salt sintering	Sérgio Noal Alves
15:30 - 15:50	1549	Zn-Ni-Mo alloys obtained by electrodeposition and influence of current density and bath temperature	Luís Felipe Nunes Truta
15:50 - 16:10	1745	Characterization of Residues Arising from Sustainable Hydrogen Generation via Metal-Mediated Reactions.	Beatriz Jacob Furlan

Monday 04 - Room CAMPECHE

Session: MME - Tribology - MON-2 CAM

Chair: Fabio Antonio Xavier

Time	Code	Title	Presenter
10:50 - 11:10	0928	Tribological assessment of carbon nanotubes films produced by plasma-enhanced chemical vapour deposition: a comparison between dry and wet conditions	Tainan Andrioni
11:10 - 11:30	1707	CHANGE IN THE VISCOSITY OF A LUBRICANT, DUE TO WATER CONTAMINATION, VERIFIED BY THE VIBRATION SIGNAL.	Bruno Motta
11:30 - 11:50	1754	Experimental Investigation of HVOF and Polymeric Coatings for Turbine Blade Protection	Fabio Antonio Xavier
11:50 - 12:10			

Session: MME - Processes with Material Removal - MON-3 CAM

Chair: Rodrigo Soterau

Time	Code	Title	Presenter
13:30 - 13:50	2427	REDUCING THE ENVIRONMENTAL IMPACT OF ALUMINA GRINDING: AN ECO-FRIENDLY APPROACH TO MITIGATING GREENHOUSE EFFECT	Matheus de souza Rodrigues
13:50 - 14:10	1484	Process analysis in the drilling of carbon fiber reinforced composite using different point angles of twisted drills	Emanuele Schneider Callisaya
14:10 - 14:30	2083	Study of Residual Stresses in Machined Parts with Different Machining Strategies of AISI 6351 Aluminum Alloy.	Dante Ricardo Ambrosio
14:30 - 14:50			

Session: MME - Processes with Material Removal - MON-4 CAM

Chair: Rodrigo Soterau

Time	Code	Title	Presenter
14:50 - 15:10	2423	DIRECT LASER INTERFERENCE PATTERNING OF CE-TZP-BASED NANOCOMPOSITE USING NANOSECOND AND PICOSECOND PULSED LASERS	Douglas Fabris
15:10 - 15:30	0691	A renewed contemporary analysis of chip formation frequency on lathe operation of SAE 4140 rolled bar under different removal rate conditions	Marcelo Rodrigues
15:30 - 15:50	0755	DETERMINATION OF THE MATERIAL REMOVAL RATE ON A-36 STEEL USING A 1064 µM NANOSECOND PULSED FIBER LASER	Santiago Caraguay
15:50 - 16:10	0944	Machinability Evaluation of Free-Cutting Steels with Bismuth Additions by Constant Pressure Test in Drilling Process	Marcelo Bertolete

Tuesday 05 - Room JOAQUINA

Session: MME - Materials Characterization and Processing - TUE-1 JOA

Chair: Rosemar Batista da Silva

Time	Code	Title	Presenter
08:00 - 08:20	1775	Experimental analysis of residual stress relief by mechanical vibration in resistance spot welding	Paola Rodrigues Pereira
08:20 - 08:40	1828	Comparative Analysis of Proton Exchange Membranes and Anion Exchange Membranes for Low-Temperature Fuel Cells	Fábio Furtado
08:40 - 09:00	1878	CHARACTERIZATION OF THE AA6082 MATRIX COMPOSITE WITH NBC OBTAINED THROUGH FRICTION STIR PROCESSING	Denner Traiano
09:00 - 09:20	1908	Application of Michael Ashby's Methodology for Material Selection of an SAE Aerodesign Landing Gear	Helner Mascarenhas dos Santos
09:20 - 09:40	2108	METAL POWDER PRODUCTION ROUTES FOR ADDITIVE MANUFACTURING AND THEIR IMPACT ON PROCESS AND QUALITY: A REVIEW	Bruno Caetano dos Santos Silva
09:40 - 10:00	2115	INVESTIGATION OF THE CAVITATION PHENOMENON IN THE MECHANICAL AND METALLURGICAL PROPERTIES IN THE ROTOR OF THE FRANCIS TYPE TURBINE MADE OF STAINLESS STEEL ASTM A743 GR CF20	Carlos Eduardo da Silva Moreira

Session: MME - Materials Characterization and Processing - TUE-2 JOA

Chair: Rosemar Batista da Silva

Time	Code	Title	Presenter
10:30 - 10:50	2149	Powder metallurgical manufacturing of Graphene reinforced titanium composites	Fernanda Signor
10:50 - 11:10	2387	USE OF NON-DESTRUCTIVE TESTING (NDT) METHODS FOR THE CHARACTERIZATION OF NOVEL SUSTAINABLE COMPOSITES AND JOINTS IN RENEWABLE RAW MATERIALS	Ulrike Siemer
11:10 - 11:30	2310	Silicon-titanium codeposition on niobium: properties and behavior at high temperatures	Beatriz Aparecida Pinto
11:30 - 11:50	2370	Using FCUB function in CNC programming to mitigate failures in drilling process with gun drills	Marcus Vendrusculo
11:50 - 12:10	2405	High-entropy Alloy CrMnFeNiCu: A Thermal and Structural Characterization Study	Athos Fernandes Araujo

Session: MME - Metrology, Inspection, and Quality Control - TUE-3 JOA

Chair: Adriano Fagali

Time	Code	Title	Presenter
13:30 - 13:50	0853	Semi-supervised machine learning for chatter detection in turning with data augmentation	Ana Julia da Silva de Oliveira
13:50 - 14:10	0945	A COMPARISON BETWEEN RFT AND IRIS NON-DESTRUCTIVE TESTING IN CARBON STEEL HEAT EXCHANGERS	Leandro João Da Silva
14:10 - 14:30	1225	EXPERIMENTAL EVALUATION OF THE UNCERTAINTY COMPONENT ASSOCIATED WITH CONSTRUCTIVE INHOMOGENEITY OF TYPE T THERMOCOUPLE CABLES	Gilvan César de Oliveira Pereira
14:30 - 14:50	1558	DETERMINATION OF RADIAL GRINDING WHEEL WEAR BY ACOUSTIC EMISSION	Santiago Caraguay

Session: MME - Metrology, Inspection, and Quality Control - TUE-4 JOA

Chair: Adriano Fagali

Time	Code	Title	Presenter
14:50 - 15:10	1863	Pre and post welding geometric deviation measurement method in stainless steel 304 welded by FCAW	Alexandre de Oliveira Dias
15:10 - 15:30	1665	L-DED CNC machine kinematic and geometric evaluation	Manoel Kolling Dutra
15:30 - 15:50	1876	STUDY OF MEASURING INSTRUMENT CAPABILITY THROUGH Cdl* AND Cg COEFFICIENTS AND CONTROL CHARTS	Felipe Roque de Albuquerque Neto
15:50 - 16:10			

Tuesday 05 - Room CAMPECHE

Session: MME - Union and Assembly Processes - TUE-1 CAM

Chair: Régis Henrique Gonçalves e Silva

Time	Code	Title	Presenter
08:00 - 08:20	0702	RESIDUAL STRESS EVALUATION IN OVERLAP JOINTS PRODUCED WITH LBW AND GTAW PROCESSES IN AISI 316L STAINLESS STEEL	Olga Liskevych
08:20 - 08:40	1587	Experimental and numerical study of coils applied to the induction preheating method in welding processes	Emanuel Silva da Rosa
08:40 - 09:00	2385	ALTERNATIVE BONDING OPTIONS FOR RENEWABLE RAW MATERIALS	Ralf Förster
09:00 - 09:20	2396	Effects of the GTAW Triple electrode process on autogenous welding of carbon steel	Tiago Ballmann de Campos
09:20 - 09:40	0130	INFLUENCES OF THE DYNAMIC WIRE FEEDING OF FLUX-CORED WIRE WITH WC IN GTAW PROCESS APPLIED TO HARDFACING COATINGS	Ivan Olszanski Pigozzo
09:40 - 10:00			

Wednesday 06 - Room JOAQUINA

Session: MME - Metallurgical Processes - WED-1 JOA

Chair: Adriano Fagali

Time	Code	Title	Presenter
08:00 - 08:20	1922	Parametrization of GMAW Welding With Switchback Technique Using Mechanized Movement System	Rodrigo Oliveira de Sousa
08:20 - 08:40	2389	DESIGN OF THE FILLING AND FEEDING SYSTEM OF GRAY CAST IRON PARTS THROUGH NUMERICAL SIMULATION	Carlos Enrique Niño
08:40 - 09:00	0632	ANALYSIS OF ABRASIVE WEAR IN HARDFACING DEPOSITED BY THE GTAW WELDING PROCESS WITH DOUBLE TUBULAR WIRE OF ALLOYS FECRC-B, FECRC-NB AND FECRC-NBW	Cristhine Beppler
09:00 - 09:20	2428	INTEGRATION OF FEM TO DETERMINE THE MICROSTRUCTURE AND FORMABILITY OF A CONTINUOUS COOLING BAINITIC STEEL	Thiago Ivaniski
09:20 - 09:40			
09:40 - 10:00			

Session: MME - Additive Manufacturing - WED-2 JOA

Chair: Rodrigo Soterau

Time	Code	Title	Presenter
10:30 - 10:50	0061	Practical guidelines for ceramic vat photopolymerization developments	Mateus Mota Morais
10:50 - 11:10	0117	Thermomechanical analysis of Wire Arc Additive Manufacturing by Finite Element Method	Vitor Seiji Andrade Tatemoto
11:10 - 11:30	0197	Modeling of the Directed Energy Deposition (DED) process to obtain residual stress states of simplified tracks	Felipe Carneiro
11:30 - 11:50	0208	Development of a Digital Twin for a Robotic Additive Manufacturing System Based on Laser Metal Deposition (LMD) Process	Brayan Stiven Figueroa Betancourth
11:50 - 12:10	0347	Study of test bodies manufactured through FDM 3D printing of the material PLA	Igor Gaviano

Session: MME - Materials Characterization and Processing - WED-3 JOA

Chair: Adriano Fagali

Time	Code	Title	Presenter
13:30 - 13:50	0042	Manufacturing of micro-scale Nd-Fe-B magnets by diamond wire sawing and electropolishing processes	Erick Cardoso Costa
13:50 - 14:10	0155	Plasma-assisted and furnace pyrolyzed polysilazane-based CrSiCN composite coating system – a comparison	Daniel Auri Schaefer
14:10 - 14:30	0164	Influence of incremental sheet forming parameters on the roughness of AISI 304 and 2205 stainless steels	João Victor Marzinetti Cunha
14:30 - 14:50			

Session: MME - Processes with Material Removal - -WED-4 JOA

Chair: Rosemar Batista da Silva

Time	Code	Title	Presenter
14:50 - 15:10	2364	Analysis of the machining forces and vibrations in turning with grooving tools	Bruno Edson Klipstein
15:10 - 15:30	2374	MODELING AND SIMULATION OF THERMAL EFFECTS IN CYLINDRICAL PLUNGE DRY GRINDING WITH PRECOOLING	Ézio Carvalho de Santana
15:30 - 15:50	0264	Development of viscoelastic dynamic neutralizer to minimize the amplification of regenerative vibrations in simultaneous turning	Bruno Edson Klipstein
15:50 - 16:10	2426	ALGORITHM DEVELOPMENT FOR TOOL PATH GENERATION AND PARAMETERS VARIATION IN LASER MICROMACHINING PROCESSES	Antonio Carlos Haidamus Monteiro Filho

Thursday 07 - Room JURERÊ

Session: MME - Processes with Material Removal & Materials Characterization and Processing - THU-1 JUR

Chair: Rosemar Batista da Silva

Time	Code	Title	Presenter
08:00 - 08:20	2406	Synthesis and characterization of the high-entropy alloy CrMnFeCoNi obtained by mechanical alloying	Athos Fernandes Araujo
08:20 - 08:40	1632	Study of Electrical Energy Consumption in Milling Surfaces Under Different Machining Conditions	Joao Carlos Espindola Ferreira
08:40 - 09:00	2106	PREDICTION AND OPTIMIZATION OF CUTTING PARAMETERS IN THE ROUGHNESS GENERATED BY TURNING AISI 420C STAINLESS STEEL	Émerson Passari
09:00 - 09:20	2124	Investigation of the Influence of Milling Process Parameters on the Quality of Carbon Fiber Reinforced Polymer Parts	Tedni de Abreu Goulart
09:20 - 09:40	2207	THE USE OF EDIBLE VEGETABLE OILS APPLIED VIA MQL TECHNIQUE IN TURNING AISI 1045 STEEL	Raphael Lima de Paiva
09:40 - 10:00			

Thursday 07 - Room ARVOREDO 2

Session: MME - Additive Manufacturing - THU-3 ARV 2

Chair: João Carlos Espindola Ferreira

Time	Code	Title	Presenter
13:30 - 13:50	0620	Void Reduction Strategies in Material Extrusion Additive Manufacturing of Metal Parts: A Review	Felipe Di Nisio
13:50 - 14:10	0669	Material Characterization of Metal Parts Printed With Highly-Filled Polymers Fillaments: A Review	Bruno Benegra Denadai
14:10 - 14:30	0684	Laser Directed Energy Deposition Process Optimization Parameters for AISI 410L Single Layers	Jurandir Sousa
14:30 - 14:50	0685	RP3: A research framework for process planning in additive manufacturing	Neri Volpato

Session: MME - Additive Manufacturing - THU-4 ARV 2

Chair: João Carlos Espindola Ferreira

Time	Code	Title	Presenter
14:50 - 15:10	0718	Development of a Robotic Additive Manufacturing Cell Based on Laser Metal Deposition Process at the University of Coimbra and University of Brasilia	Brayan Stiven Figueroa Betancourth
15:10 - 15:30	0828	The influence of processing parameters on the dimensional accuracy of non-solid block support structures manufactured by laser powder bed fusion	Dan Gallego
15:30 - 15:50	1447	A REVIEW OF METALLIC BINDER JETTING PROCESSES WITH THERMAL INKJET HEADS	Rodrigo Pulido Arce
15:50 - 16:10	2392	Applying a Multi-Armed Bandit (MAB) Problem-based Algorithm to optimize printing routes in GMAW Additive Manufacturing	Americo Scotti

Friday 08 - Room SAMBAQUI 3

Session: MME - Additive Manufacturing - FRI-3 SAM 03

Chair: Fábio Antonio Xavier

Time	Code	Title	Presenter
13:30 - 13:50	1472	Characterization of Nanocomposite Powders for Additive Manufacturing	Gustavo Scheid Prass
13:50 - 14:10	1582	Numerical simulation of the thermal behavior in the deposition of a multilayer wall of steel AISI 316 by DED-PTA	Rodrigo Aparecido da Silva
14:10 - 14:30	1584	Fabrication of Nb-Si-Al components by Additive Manufacturing Techniques	Eloisa Cardozo
14:30 - 14:50	1760	Numerical Simulation of the Additive Manufacturing Process by Laser Powder Bed Fusion	Guilherme Moura

Session: MME - Processes with Material Removal - FRI-4 SAM 3

Chair: Fábio Antonio Xavier

Time	Code	Title	Presenter
14:50 - 15:10	1780	NUMERICAL MODELING OF A ELECTROPLATED DIAMOND WIRE FOR CRYSTALLINE SILICON MACHINING	Pedro Córdula de Sousa
15:10 - 15:30	2067	CONTRIBUTION TO THE STUDY OF ROUGHNESS AND ELECTRICAL POWER IN THE GRINDING OF STAINLESS STEEL USED FOR MOLDS AND DIES	Rosemar Batista da Silva
15:30 - 15:50	1212	COMPARATIVE STUDY OF FRONT MILLING OF PEEK AND PEEK-CF30	Carlos Alfredo Gracioli Aita
15:50 - 16:10	1746	ASSESSMENT OF LUBRICOOLING METHODS ON TOOL LIFE AND SURFACE ROUGHNESS IN ASTM A182 F55 SUPER DUPLEX STAINLESS STEEL TURNING	Gabriel Pinto

Friday 08 - Room ARVOREDO 2

Session: MME - Additive Manufacturing - FRI-1 ARV 2

Chair: Neri Volpato

Time	Code	Title	Presenter
08:00 - 08:20	1182	Comparing Metal Filaments and Pellets for Material Extrusion in Additive Manufacturing: A Review.	Victor Wassano Buchwitz
08:20 - 08:40	1215	INFLUENCE OF POWDER PARTICLE SIZE IN THE MICROSTRUCTURE AND MECHANICAL PROPERTIES OF INCONEL 718 COMPONENTS PRODUCED BY LASER-DIRECTED ENERGY DEPOSITION	Johan sebastian Grass Nunez
08:40 - 09:00	1350	Mechanical Performance of Inconel 625 Alloy Processed by L-DED Additive Manufacturing	Juliane Ribeiro da Cruz Alves
09:00 - 09:20	1444	17-4 PH Stainless Steel deposited by the Metallic Fused Filament Fabrication (FFF) process	Júlia Fornaziero de Almeida
09:20 - 09:40	1446	Investigating the Relationship Between Mass and Flexural Resistance in Material Extrusion Additive Manufacturing of Carbonyl Iron Components: A Comparative Study with Metal Injection Molding	Augusto Adami Vidali00999
09:40 - 10:00	0962	Residual Stress in Additive Manufactured Polymers	Arthur Adeodato

Session: MME - Additive Manufacturing - FRI-2 ARV 2

Chair: Neri Volpato

Time	Code	Title	Presenter
10:30 - 10:50	1883	Free software tools for Additive Manufacturing process planning	Laureana Stelmastchuk Benassi Fontolan
10:50 - 11:10	1886	Is hybrid additive manufacturing the best option comparing cost, quality, productivity and flexibility? A case study using Bia Area Additive Manufacturing (BAAM) and Fused Filament Fabrication (FFF) for a bearing manufacturing.	Alex Camilli Bottene
11:10 - 11:30	2119	COMPARATIVE STUDY OF MECHANICAL PROPERTIES OF POLYAMIDE 12 MANUFACTURED BY ADDITIVE MANUFACTURING AND CONVENTIONAL PROCESSES	Bruno Caetano dos Santos Silva
11:30 - 11:50	2190	Finite elements simulations of low cycle fatigue analyses for additive manufacturing applications	Julia Carvalho
11:50 - 12:10	0997	Effects of the printing parameters on the shape memory effects on 3D printed polylactic acid (PLA)	Brenno Tavares Duarte

DCVA
Dynamics, Control, Vibrations & Acoustics

Monday, Dec 4	
Time	**Sessions**
9:10 -10:30	MON-1 JUR
10:30 - 10:50	Coffee break
10:50 - 12:10	MON-2 JUR
12:10 - 13:30	lunch
13:30 - 14:50	MON-3 JUR
14:50 - 16:10	MON-4 JUR
16:10 - 17:00	Coffee break & Poster presentations

Tuesday, Dec 5	
Time	**Sessions**
8:00 - 10:00	TUE-1 JUR
10:00 - 10:30	Coffee break
10:30 - 12:10	TUE-2 JUR
12:10 - 13:30	lunch
13:30 - 14:50	TUE-3 ARV 02
14:50 - 16:10	TUE-4 ARV 02
16:10 - 17:00	Coffee break & Poster presentations

Wednesday, Dec 6	
Time	**Sessions**
8:00 - 10:00	
10:00 - 10:30	Coffee break
10:30 - 12:10	WED-2 JUR WED-2 CAM
12:10 - 13:30	lunch
13:30 - 14:50	WED-3 JUR
14:50 - 16:10	
16:10 - 17:00	Coffee break & Poster presentations

Thursday, Dec 7	
Time	**Sessions**
8:00 - 10:00	
10:00 - 10:30	Coffee break
10:30 - 12:10	
12:10 - 13:30	lunch
13:30 - 14:50	THU-3 JUR
14:50 - 16:10	THU-4 JUR
16:10 - 17:00	Coffee break & Poster presentations

Friday, Dec 8	
Time	**Sessions**
8:00 - 10:00	FRI-1 JUR
10:00 - 10:30	Coffee break
10:30 - 12:10	FRI-2 JUR FRI-2 ARV 4
12:10 - 13:30	lunch
13:30 - 14:50	FRI-3 JUR FRI-3 SAM 5
14:50 - 16:10	FRI-4 JUR FRI-4 SAM 5

Dynamics, Control, Vibrations & Acoustics

ORAL PRESENTATIONS

Monday 04 - Room JURERÊ

Session: DVCA - Smart structures - MON-1 JUR

Chair: José Luiz de França Freire

Time	Code	Title	Presenter
09:10 - 09:30	1249	Analysis of manufacturing process of a Superelastic NiTi Bending Spring	Abner da Silveira Alves
09:30 - 09:50	1700	Design and analysis of a topological piezoelectric metamaterial beam	Luis Alfredo Pérez Martínez
09:50 - 10:10	1713	Investigation of resonant shunt circuit connected piezoelectric path for low-frequency tuning	Braion Moura
10:10 - 10:30			

Session: DVCA - Multibody systems - MON-2 JUR

Chair: João Luiz Azevedo

Time	Code	Title	Presenter
10:50 - 11:10	0317	Optimizing Communication for Catarina Constellation's Nanossatelites	Guilherme Gomes
11:10 - 11:30	0476	A MULTIBODY-DYNAMIC MODEL TO STUDY THE INFLUENCE OF HAUL TRUCK SUSPENSION SETUP ON THE CHASSIS MECHANICAL BEHAVIOR	Alvaro Estanislau Dantas
11:30 - 11:50	1467	On the modeling of an UAV flight formation for aerial transportation	Renan Silva
11:50 - 12:10	2342	Computational Analysis Of Weapons Shooting Accuracy Under Vibrations Conditions	Dante Ricardo Ambrosio

Session: DVCA - Structural dynamics and vibrations - MON-3 JUR

Chair: Celso Pupo Pesce

Time	Code	Title	Presenter
13:30 - 13:50	0142	ON THE EVALUATION OF NATURAL FREQUENCIES AND MODE SHAPES OF BEAMS UNDER TENSILE AXIAL LOAD	Kevin Mauricio Menon Ribeiro
13:50 - 14:10	0165	Transfer Learning Performance for Structural Health Monitoring through Boundary Condition Investigation	Estênio Fuzaro de Almeida
14:10 - 14:30	0212	COMPARATIVE ANALYSIS OF THE PERFORMANCE OF TMD AND KDAMPER VIBRATION ATTENUATORS	Herbert Martins Gomes
14:30 - 14:50	0433	Back-to-back test rig instrumentation for transmission error measurement	Matheus Fernandes Vieira

Session: DVCA - Structural dynamics and vibrations - MON-4 JUR

Chair: Carlos Alberto de Almeida

Time	Code	Title	Presenter
14:50 - 15:10	0457	A Modal Reduction Scheme for the Free Vibration of Strings with Inertially Loaded Boundary	Pedro Menescal Jales
15:10 - 15:30	1877	On The Behavior Of Finite And Infinite Beams With Uncoupled Force- And Moment-Acting Discrete Attachments	Vladislav Sorokin
15:30 - 15:50	0576	COMPARISON OF NUMERICAL-EXPERIMENTAL CORRELATION METHODS OF MODES SHAPES: CASE STUDY	Ricardo Homero Ramírez Gutiérrez
15:50 - 16:10	1155	Prediction of the Stability Map of a Non-Conventional Sintering Process by Using a Dynamic Bifurcation Model	João Gustavo Pereira da Silva

Tuesday 05 - Room ARVOREDO 2

Session: DVCA - Dynamics of Mechanical Systems - TUE-3 ARV 2

Chair: Paulo Kurka

Time	Code	Title	Presenter
13:30 - 13:50	0216	Machine Learning Approach for Structural Health Monitoring Using Decision Trees and XGBoost	Heitor Rosa
13:50 - 14:10	0294	Modeling and Analysis of Floating Solar Panels with Tracking System for Hydroelectric Plants in the Amazon Region of Brazil	Cláudio Basquerotto
14:10 - 14:30	0752	Stability Assessment of the Resonant Linear Permanent Magnetic Generators Powered by Free Piston Engines	Marcelo Braga dos Santos
14:30 - 14:50	0783	A COMBINATION OF SIGNAL PROCESSING AND CLASSIFICATION TECHNIQUES FOR EVALUATING HEALTH CONDITIONS IN GEARED SYSTEMS - A SIMULATION-BASED APPROACH	José Carlos Dias Filho

Session: DVCA - Dynamics of Mechanical Systems - TUE-4 ARV 2

Chair: Julio A. Cordioli

Time	Code	Title	Presenter
14:50 - 15:10	1481	ANALYSIS OF EXPERIMENTAL SIGNALS IN THE TIME AND FREQUENCY DOMAIN OF ELECTRODYNAMICS EXCITERS	Gustavo Carvalho Pereira
15:10 - 15:30	1740	Analysis of vibration dynamics with nonlinear damping by means of the Krylov-Bogoliubov method.	Robert Batista Neves
15:30 - 15:50	2161	Modal analysis of SpectraQuest's Machinery Fault Simulator	Luiz Felipe da Rosa Fonseca da Silva
15:50 - 16:10	2430	Numerical Simulation of Shock Loads for High-Voltage Traction Batteries	Sergej Diel

Tuesday 05 - Room JURERÊ

Session: DVCA - Acoustics and vibroacoustics - TUE-1 JUR

Chair: Renato Pavanello

Time	Code	Title	Presenter
08:00 - 08:20	0163	Sound energy control in a wide frequency domain by a hybrid acoustic material	Victor Bahú
08:20 - 08:40	0188	FREQUENCY POWER LAWS FOR THE DECAY OF THE LEAK NOISE SPECTRUM IN SANDY SOIL WITH DIFFERENT DEGREES OF COMPACTION	Matheus Proença
08:40 - 09:00	0378	An investigation of wave propation in rotating shafts with attached disks	Gilberto de Sousa Pinheiro Filho
09:00 - 09:20	0411	Aeroacoustics effects of the Wavy Leading Edge on a Fan-Rig SDT stators.	Rolando Guzmán-Bohórquez
09:20 - 09:40	0770	Use of natural fibers for sound absorption: A chronological literature review	Gabriel Weiss Mattioli
09:40 - 10:00		INVESTIGATION OF AN IDENTICAL METASTRUCTURE FOR VIBRATION ATTENUATION IN A CRANKSHAFT WITH NON-CONSTANT INERTIA	Nícolas da Silva Dias

Session: DVCA - Acoustics and vibroacoustics - TUE-2 JUR

Chair: José Maria Campos dos Santos

Time	Code	Title	Presenter
10:30 - 10:50	1283	A web-based simulator to aid leak detection in water distribution pipes when using vibro-acoustic techniques	Fabricio Almeida
10:50 - 11:10	1573	Validation of a time-domain model for acoustic impedance tube design	Thiago de Paula Sales
11:10 - 11:30	1988	An experimental investigation on the two-phase intermittent flow coupling with structural vibration of horizontal pipes	Adriano Todorovic Fabro
11:30 - 11:50	2110	Development of slotted panel to acoustic treatment of rooms	Leandro Barbosa
11:50 - 12:10	2316	Symmetrical Damage Detection in Beam Structures using Wave Propagation and Piezoelectric Sensors: A Theoretical Study	Pedro Ayala

Wednesday 06 - Room CAMPECHE

Session: DVCA - Rotordynamics - WED-2 CAM

Chair: Paulo Paupitz

Time	Code	Title	Presenter
10:30 - 10:50	0040	Balancing of Rotating Systems without Trial Masses	Diego Ataíde Couto de Paula
10:50 - 11:10	0057	Structural Optimization for Resonance-Free Turbomachinery Blisks	Diego Zilli Lima
11:10 - 11:30	0094	Some Considerations about the Use of Operational Modal Analysis in Turbomachinery	Adhemar Castilho
11:30 - 11:50	0269	On the application of adptive controllers to a 25 MW floating wind turbine	Carlos Renan dos Santos
11:50 - 12:10	0335	Prediction and Control of Bifurcations in rotor-foundation systems supported by fluid-film bearings	Arthur Mereles

Wednesday 06 - Room JURERÊ

Session: DVCA - Control of Mechanical Systems - WED-2 JUR

Chair: José Manoel Balthazar

Time	Code	Title	Presenter
10:30 - 10:50	0512	A comparative analysis of online and offline methods for secondary path estimation in active noise control applications using the Fx-LMS algorithm	Bruno Gomes
10:50 - 11:10	0921	Sliding Mode Control for Suppression of Stick-Slip Vibrations in Oilwell Drill Strings	André Victor da Silva Castilho
11:10 - 11:30	1851	MONITORING OF BALLBEARINGS VIA VIBRATION ANALYSIS FOR PREDICTIVE MAINTENANCE PURPOSES	Adiel Pessôa
11:30 - 11:50	2100	MODE OBSERVER BASED ON MOVING HORIZON ESTIMATION APPROXIMATION THROUGH NEURAL NETWORKS	Lara Candido Alvim
11:50 - 12:10	2168	A Comparative Study of PID Controller Tuning Methods using Bio-Inspired Algorithms and IMC Approach for a Nonlinear Tank System	Matheus Bawden Silverio de Castro

Session: DVCA - Structural dynamics and vibrations - WED-3 JUR

Chair: Marcelino Guedes Gomes

Time	Code	Title	Presenter
13:30 - 13:50	1845	A strategy to form super attenuation bands in beams using arrays of resonators	Vinicius Germanos Cleante
13:50 - 14:10	1859	Heuristic optimization methodology applied to passive vibration control using constrained layers on plates	SANDMARA LANHI
14:10 - 14:30	2401	A NEW APPROACH USING TRANSMISSIBILITY AND KERNEL PRINCIPAL COMPONENT ANALYSIS TO DETECT DAMAGE FOR A NONLINEAR STRUCTURE WITH UNCERTAINTIES	Wellington Lima Nogueira
14:30 - 14:50	0518	Wave Propagation and Band Gap Formation in Corrugated Plates	Rodrigo Nicoletti

Thursday 07 - Room JURERÊ

Session: DVCA - Rotordynamics - THU-3 JUR

Chair: Rodrigo Nicoletti

Time	Code	Title	Presenter
13:30 - 13:50	0368	Comparative Study of Artificial Neural Networks and Augmented Kalman Filter models applied to balancing of Flexible Rotors without test mass	Raimundo Neto
13:50 - 14:10	0674	Virtual Sensing of Rotating Machines using Augmented Kalman Filter and ROSS Models	Stanley Washington Ferreira Rezende
14:10 - 14:30	0849	Numerical Simulation of Gas and Liquid Seals for Rotordynamic Coefficients Calculations using Open Source Software	Franco Barbi
14:30 - 14:50	0943	Explainable AI applied to Malfanction Parameter Determination on Rotating Machines using Bayesian Neural Networks and Sobol Index	Olympio Belli

Session: DVCA - Rotordynamics - THU-4 JUR

Chair: Marcelo Savi

Time	Code	Title	Presenter
14:50 - 15:10	1101	Assessment of Modal Balancing Technique Applied to a Rotating Machine Supported by Deep-Groove Ball Bearings	Yuri Andrade Dias Martins
15:10 - 15:30	1198	Fault detection in rotating machines using LSTM and time series analysis	Daniel Awada Elarrat Canto
15:30 - 15:50	1408	Uncertainty Analysis of the Band Gap Formation in Periodic Rotors	Patrick Bueno Lamas
15:50 - 16:10	1422	DYNAMIC ANALYSIS OF A MULTI-SHAFT GEARED SYSTEM SUPPORTED BY HYDRODYNAMIC BEARINGS	João Henrique dos Santos de Pontes

Friday 08 - Room JURERÊ

Session: DVCA - Structural dynamics and vibrations- FRI-1 JUR

Chair: Dra. Lais Visnadi

Time	Code	Title	Presenter
08:00 - 08:20	0777	ON THE USE OF THE GENERALIZED INTEGRATING FACTOR FOR SOLVING COUPLED SYSTEMS OF ORDINARY SECOND ORDER LINEAR DIFFERENTIAL EQUATIONS	Matheus Janczkowski Fogaça
08:20 - 08:40	0799	Topology optimization of elastic internal resonators for sandwich metastructures	Carlos Andrés Rincón Velásquez
08:40 - 09:00	0841	Numerical Investigation on the Dynamic Behaviour of 1-D Hierarchical Mechanical Metamaterials	Cássio Bruno Florêncio Gomes
09:00 - 09:20	1004	Spectral Analysis of Fatigue in Drill Strings under Torsional Vibrations	Sandro Valente
09:20 - 09:40	1067	Investigation of a novel metastructure with trapped, fluid-filled unit cells	Vinícius Santos
09:40 - 10:00	1068	On the dynamic behavior of a one-dimensional metamaterial possessing inertial amplification mechanism combined with negative stiffness absorbers	Vinícius Santos

Session: DVCA - Rotordynamics - FRI-2 JUR

Chair: Henrique Simas

Time	Code	Title	Presenter
10:30 - 10:50	1635	Comparison of Traditional Vibration Analysis Techniques and Machine Learning Models for Bearing Fault Detection	Victor Bauler
10:50 - 11:10	1734	IDENTIFICATION OF MODAL PARAMETERS OF ROTATING MACHINES VIA AUTOMATIC OPERATIONAL MODAL ANALYSIS	Nathali Dreher
11:10 - 11:30	1736	Numerical Analysis of Rotordynamic Systems Using Harmonic Balance Method	Bárbara Nara Teixeira Cunha
11:30 - 11:50	1826	Vibration Reduction of Flexible Shaft with Active Bearing	Heitor Antônio Pereira da Silva
11:50 - 12:10	2429	Dynamical analysis of a helical gear pair with backlash under variable load torque conditions	Laís Bittencourt Visnadi

Session: DVCA - Structural dynamics and vibrations - FRI-3 JUR

Chair: Adriano Fabro

Time	Code	Title	Presenter
13:30 - 13:50	1106	Exploring the inertial amplification mechanism in mono-coupled periodic rod structures	Gabriel Moimás
13:50 - 14:10	1611	Experimental assessment of piezoelectric energy harvesting from VIV on cantilevered flexible cylinders with orthotropic bending stiffness	Letícia Madi
14:10 - 14:30	1681	A study about the effects of extensibility in cantilevered pipes conveying fluid under VIV using a modular modeling methodology	Daniel de Oliveira Tomin
14:30 - 14:50	1439	Investigation of the dynamic behavior of reinforced beams	Lucas Henrique Bastos Oliveira

Session: DVCA - Structural dynamics and vibrations - FRI-4 JUR

Chair: Julio Cordioli

Time	Code	Title	Presenter
14:50 - 15:10	1604	NUMERICAL EVALUATION OF ITERATIVE METHODS FOR CALCULATING FREQUENCY RESPONSE FUNCTIONS OF DYNAMIC STRUCTURES COMPOSED OF VISCOELASTIC MATERIALS.	Luiz Otavio Rigobello Muraro
15:10 - 15:30	1194	Evaluation of Rolling Bearing Stiffness to Improve Critical Velocity Calculation	Marcos Paulo Nostrani
15:30 - 15:50	1797	Bandgap analysis for periodic frame metastructure coupled with local resonators	wanderson vinicius de oliveira monteiro
15:50 - 16:10	1820	Evaluation of different aspect of fault detection methodologies based on Time Synchronous Averaging	Racquel Knust Domingues

Friday 08 - Room SAMBAQUI 5

Session: DVCA - Vehicle dynamics - FRI-3 SAM 5

Chair: Helio Fiori

Time	Code	Title	Presenter
13:30 - 13:50	0209	Modelling of a Motorcycle with a Biodynamic Pilot and a New Integration Method	Leonardo Roso Colpo
13:50 - 14:10	0498	Vehicle stability using an automotive electronic system: yaw rate, side-slip angle, and roll rate control	Carlos Alberto Arronte Delgado
14:10 - 14:30	0499	H-Infinity control design for a full-vehicle suspension model with active anti-roll bar and electronic dampers	Matheus Soares
14:30 - 14:50	0421	A PROCEDURE BASED ON MULTIBODY DYNAMICS AND GENETIC ALGORITHM TO STUDY THE INFLUENCE OF THE HYDROPNEUMATIC SUSPENSION ON THE CABIN VIBRATION OF HAUL TRUCKS	Rodrigo Pessoa L. Oliveira

Session: DVCA - Vehicle dynamics - FRI-4 SAM 5

Chair: Niederauer Mastelari

Time	Code	Title	Presenter
14:50 - 15:10	0651	Validation of the model to the stability of heavy vehicles calculation	Gonzalo Moreno
15:10 - 15:30	0686	PARAMETER ESTIMATION OF A SINGLE STAGE GEARBOX USING THE LEVENBERG-MARQUARDT METHOD	Tobias Rosa
15:30 - 15:50	0824	SUSPENSION SYSTEM STUDY ON THE PUSH ROD DOUBLE WISHBONE MODEL WITH VARIABLE STIFFNESS ACTUATOR FOR PERFORMANCE GAIN IN VEHICLES ON THE NORMALIZED DOUBLE LANE CHANGE TEST	Guilherme Bernardi
15:50 - 16:10	0883	Modelling and Control of a Passenger Vehicle with an Active Anti-Roll Bar	Andrei Araujo Felix

Friday 08 - Room ARVOREDO 4

Session: DVCA - Vehicle dynamics - FRI-2 ARV 4

Chair: Raphael Paiva

Time	Code	Title	Presenter
10:30 - 10:50	1202	Optimization of the LQR and SDRE control scheme for a non-linear semi-active MR damper on a quarter vehicle model	Leonardo da Costa Rodrigues Ferreira
10:50 - 11:10	1593	ANALYSIS OF THE USE OF FAST FOURIER TRANSFORM AND DISCRETE WAVELET TRANSFORM IN THE DIAGNOSIS OF FAULTS IN THREE-PHASE INDUCTION MOTORS THROUGH VIBRATION SIGNALS.	Ricardo Cardoso Soares
11:10 - 11:30	2060	Experimental Methods for Identifying Physical Parameters of Four-Wheeled Autonomous Vehicles	João Bezerra
11:30 - 11:50	2281	Methodology for subjective driveability calibration of a passenger vehicle using a Drive-in-Motion (DiM) simulator	Marcelo Fantaguzzi
11:50 - 12:10	2356	Directional Stability Improvement of a Distributed Drive Electric Vehicle Based on Sliding Mode Control	Daniel Augusto de Souza Mello Monteiro

MECH
Mechatronics & Automation

Monday, Dec 4	
Time	**Sessions**
9:10 -10:30	
10:30 - 10:50	**Coffee break**
10:50 - 12:10	
12:10 - 13:30	lunch
13:30 - 14:50	
14:50 - 16:10	
16:10 - 17:00	**Coffee break & Poster presentations**

Tuesday, Dec 5	
Time	**Sessions**
8:00 - 10:00	**TUE-1 ARV 2**
10:00 - 10:30	**Coffee break**
10:30 - 12:10	**TUE-2 ARV 2**
12:10 - 13:30	lunch
13:30 - 14:50	
14:50 - 16:10	
16:10 - 17:00	**Coffee break & Poster presentations**

Wednesday, Dec 6	
Time	**Sessions**
8:00 - 10:00	**WED-1 ARV 2**
10:00 - 10:30	**Coffee break**
10:30 - 12:10	**WED-2 ARV 2**
12:10 - 13:30	lunch
13:30 - 14:50	**WED-3 ARV 2**
14:50 - 16:10	**WED-4 ARV 2 WED-4 JUR**
16:10 - 17:00	**Coffee break & Poster presentations**

Thursday, Dec 7	
Time	**Sessions**
8:00 - 10:00	**THU-1 ARV 2**
10:00 - 10:30	**Coffee break**
10:30 - 12:10	
12:10 - 13:30	lunch
13:30 - 14:50	
14:50 - 16:10	
16:10 - 17:00	**Coffee break & Poster presentations**

Friday, Dec 8	
Time	**Sessions**
8:00 - 10:00	
10:00 - 10:30	**Coffee break**
10:30 - 12:10	
12:10 - 13:30	lunch
13:30 - 14:50	**FRI-3 ARV 2**
14:50 - 16:10	**FRI-4 ARV 2**

Mechatronics & Automation

ORAL PRESENTATIONS

Tuesday 05 - Room ARVOREDO 2

Session: MECH - Artificial Intelligent Applications - TUE-1 ARV 2

Chair: Julia Bertelli Duarte

Time	Code	Title	Presenter
08:00 - 08:20	0363	A novel approach for anomaly detection in edge analytics of vibration data in rotating machinery	Julia Duarte
08:20 - 08:40	0822	AUTOMOTIVE BEARINGS ANALYSIS BASED ON REGRESSION MODELS	Isabelle Therezinha Simão.
08:40 - 09:00	0823	EXPLORATORY DATA ANALYSIS APPLIED TO BEARING MANUFACTURING PROCESS IN THE AUTOMOTIVE FIELD	Isabelle Therezinha Simão
09:00 - 09:20	1010	Identification of Two-phase Oil-water Flow Regimes Using Machine Learning	Henrique Cavalheiro
09:20 - 09:40	1027	Enhancing hydrological forecasting accuracy in Brazilian hydroelectric reservoirs using Echo State Networks and Variational Mode Decomposition	LUIZ EDUARDO THOMAZ
09:40 - 10:00	1374	Application of Differential Evolution for Adjusting the Parameters of the LQR to a Quadrotor	Laura Ribeiro

Session: MECH - Sensors and Actuators - TUE-2 ARV 2

Chair: Henrique Simas

Time	Code	Title	Presenter
10:30 - 10:50	2139	Moisture and PH Control using a A Low Cost Experimental Approach for a Vertical Agricultural Indoor Module	Nicolas David Pabon Aguilar
10:50 - 11:10	2158	ACOUSTIC EMISSION SYSTEM APPLIED TO THE IDENTIFICATION OF EARLY STAGE CRACKS IN METALLIC COMPONENTS	Raul Gaspari Santos
11:10 - 11:30	2412	MEASUREMENT OF FRESH CONCRETE COMPONENTS USING ELECTRICAL IMPEDANCE	Marcos Fortulan
11:30 - 11:50	2378	Comparative performance analysis for double-roof pyramid wavefront sensor	Rodrigo Lima Stoeterau
11:50 - 12:10			

Wednesday 06 - Room ARVOREDO 2

Session: MECH - Artificial Intelligent Applications - WED-1 ARV 2

Chair: Thiago Liquita Sávio

Time	Code	Title	Presenter
08:00 - 08:20	1473	Detecting and localizing damage in an active automotive suspension using machine learning methods and a filter bank	Bruno Santos
08:20 - 08:40	1574	GRAPH NEURAL NETWORK APPLIED TO BEARING FAULT DIAGNOSIS	Alan Lopes
08:40 - 09:00	1672	FAULT DIAGNOSIS OF TURBOCHARGED SPARK-IGNITED ENGINE SYSTEM BASED ON LONG SHORT-TERM MEMORY APPROACH	LUIZ EDUARDO THOMAZ
09:00 - 09:20	1929	One-class Support Vector Machines for Real-time and Unsupervised Condition Monitoring of Rotary Machines	Alexandre Henrique Pereira Tavares
09:20 - 09:40	2216	Application of Artificial Neural Networks in the 3RRR flexible parallel manipulator for model extraction	Thiago Liquita Sávio
09:40 - 10:00			

Session: MECH - Robotics and Mechanisms - WED-2 ARV 2

Chair: Daniel Martins

Time	Code	Title	Presenter
10:30 - 10:50	0295	Design, Simulation and Programming of an Arduino Robotic Cell	Julio Cesar Frantz
10:50 - 11:10	0562	Static analysis and failure modes of Humanoid Robots in contact with the environment	Lucas Weihmann
11:10 - 11:30	0670	Ankle rehabilitation robots and its main features: a review	Ricardo Halla II
11:30 - 11:50	0689	Optimal dimensional synthesis of a six-link steering linkage using natural coordinates as design variables	Carlos Pinzon
11:50 - 12:10	0761	Efficiency of the Reducer of a Bevel-Geared Motor	Gustavo Queiroz

Session: MECH - Robotics and Mechanisms - WED-3 ARV 2

Chair Luis Paulo Laus

Time	Code	Title	Presenter
13:30 - 13:50	0932	A new equation for the point closest to the origin on an axis: a review of Chasles' Theorem	Luis Paulo Laus
13:50 - 14:10	1090	Investigation on the use of parallel four-bar linkages in humanoid robot legs during stand-up motion	Thiago de Paula Sales
14:10 - 14:30	1137	Mass Reduction and Mobility Improvement of an Overhead Powerline Inspection Robot	Eduardo da Silveira de Meneses
14:30 - 14:50	1187	Analysis of Structural Robustness for Low-Cost Quadrupedal Robots	Leonardo Felipe dos Santos

Session: MECH - Robotics and Mechanisms - WED-4 ARV 2

Chair: Henrique Simas

Time	Code	Title	Presenter
14:50 - 15:10	0773	An Analysis of a 4-DoF Kinematically Redundant Planar Parallel Mechanism	Luan Meneghini
15:10 - 15:30	0816	A methodological proposal for the optimal solution of the 2-DPLP problem	Fernanda de Oliveira Ferreira
15:30 - 15:50	0847	Design of an impedance control test bench	Elisa Gamper Vergamini
15:50 - 16:10	0857	Adaptive Trajectories for Robotic Manipulators Based on Computer Vision	João Victor Zanoni

Wednesday 06 - Room JURERE

Session: MECH - Fluid Power Systems – WED-4 JUR

Chair: Victor Juliano De Negri

Time	Code	Title	Presenter
14:50 - 15:10	0757	The State-of-the-Art of Hydrostatic Transmissions in Micro-Hydropower Plants	Sabrina Knoll Godoy Ilha
15:10 - 15:30	0767	Analysis of Digital Hydraulic System for Aircraft with Focus on Energy Efficiency	Marcos Paulo Nostrani
15:30 - 15:50	1628	A study of an Electro-Hydrostatic Actuator for aircraft application	Dimitri Oliveira e Silva
15:50 - 16:10			

Thursday 07 - Room ARVOREDO 2

Session: MECH - Robotics and Mechanisms & Computer Vision - THU-1 ARV 2

Chair: Julia Bertelli Duarte

Time	Code	Title	Presenter
08:00 - 08:20	1200	An Educational Platform for Tripteron/Triflex II Robots: A Step towards the Development of New Parallel Manipulators	Anelize Zomkowski Salvi
08:20 - 08:40	1534	Synthesis of a new clamping mechanism design for agricultural harvest	Gustavo Valdatti Souza
08:40 - 09:00			
09:00 - 09:20	1932	Development of a New Functional and Discrete Finger Prosthesis	Esdras Salgado da Silva
09:20 - 09:40	1847	Mechanical components recognition through computer vision usage	Giuliana Sardi Venter
09:40 - 10:00	1894	A simplified model for cloud height determination with fisheye cameras stereo computer vision	Darío Gerardo Fantini

Friday 08 - Room ARVOREDO 2

Session: MECH - Control Systems - FRI-3 ARV 2

Chair: Edson Roberto De Pieri

Time	Code	Title	Presenter
13:30 - 13:50	0573	STABILIZATION OF A FURUTA PENDULUM BY USING A VARIANT DISTURBANCE REJECTION CONTROL APPROACH	Alessandro Zachi
13:50 - 14:10	0324	A review on gyrostabilized systems	Murillo Batista dos Santos
14:10 - 14:30	0836	A Tutorial on Linear Gap Metrics for Robust Control	Jose Luiz Montandon Neto
14:30 - 14:50	1834	CONCEPTUAL DESIGN OF A PLATFORM FOR TRANSFORMER TRANSPORTATION IN DIFFIULT ACCESS LOCATIONS	Lucas Imanisi

Session: MECH - Control Systems & Industrial Informatics, Discrete and Hybrid Systems - FRI-4 ARV 2

Chair: Edson Roberto De Pieri

Time	Code	Title	Presenter
14:50 - 15:10	1433	Robust UAV formation control	Thamiris Costa
15:10 - 15:30	2154	Modeling And Simulation Of a Sustainable Extended Range Enhanced Electric Vehicle	Alexandre Moura da Silveira
15:30 - 15:50	0915	Model checking aided design of alarm and seal logic for ship control and monitoring system	RAFAEL CELESTINO DOS SANTOS
15:50 - 16:10			

SOL
Solid Mechanics

Monday, Dec 4	
Time	**Sessions**
9:10 -10:30	
10:30 - 10:50	**Coffee break**
10:50 - 12:10	
12:10 - 13:30	lunch
13:30 - 14:50	
14:50 - 16:10	
16:10 - 17:00	**Coffee break & Poster presentations**

Tuesday, Dec 5	
Time	**Sessions**
8:00 - 10:00	
10:00 - 10:30	**Coffee break**
10:30 - 12:10	2
12:10 - 13:30	lunch
13:30 - 14:50	
14:50 - 16:10	
16:10 - 17:00	**Coffee break & Poster presentations**

Wednesday, Dec 6	
Time	**Sessions**
8:00 - 10:00	**WED-1 CAM**
10:00 - 10:30	**Coffee break**
10:30 - 12:10	
12:10 - 13:30	lunch
13:30 - 14:50	
14:50 - 16:10	
16:10 - 17:00	**Coffee break & Poster presentations**

Thursday, Dec 7	
Time	**Sessions**
8:00 - 10:00	**THU-1 JOA**
10:00 - 10:30	**Coffee break**
10:30 - 12:10	**THU-2 JOA**
12:10 - 13:30	lunch
13:30 - 14:50	**THU-3 JOA THU-3 RIB**
14:50 - 16:10	**THU-4 JOA THU-4 RIB**
16:10 - 17:00	**Coffee break & Poster presentations**

Friday, Dec 8	
Time	**Sessions**
8:00 - 10:00	**FRI-1 CAM FRI-1 RIB**
10:00 - 10:30	**Coffee break**
10:30 - 12:10	**FRI-2 CAM FRI-2 SAM 3**
12:10 - 13:30	lunch
13:30 - 14:50	**FRI-3 CAM**
14:50 - 16:10	**FRI-4 CAM**

Solid Mechanics

ORAL PRESENTATIONS

Wednesday 06 - Room CAMPECHE

Session: SOL - Optimization of Materials, Fluids and Structures - WED-1 CAM

Chair: Pablo Muñoz

Time	Code	Title	Presenter
08:00 - 08:20	0285	Evolutionary Topology Optimization of Pressure-actuated Compliant Mechanisms	Vitor Hugo Lima
08:20 - 08:40	0320	Topology optimization of compliant mechanisms subjected to harmonic loads.	Valéria Farias da Luz
08:40 - 09:00	1092	MULTI-MATERIAL TOPOLOGY OPTIMIZATION WITH SIMP FORMULATION AND HEAVISIDE THRESHOLD FUNCTION FILTER	Herbert Gomes
09:00 - 09:20	2088	Parameter estimation for discrete element methods (DEM) in the simulation of iron ore flow	José Cléber Rodrigues da Silva
09:20 - 09:40	1154	An Educational MATLAB Code for Topology Optimization of Thick-Thin Plates using Arbitrary Polygonal Meshes	Diego Santos Duarte
09:40 - 10:00	2372	An implementation of the TOBS method for topology optimization of large-scale 3D structures	Lucas Mamedes

THURSDAY 07 - Room RIBEIRÃO

Session: SOL - Numerical Methods: FEM, XFEM, GFEM, BEM and other methods - THU-3 RIB

Chair: Marco Lúcio Bittencourt

Time	Code	Title	Presenter
13:30 - 13:50	1518	Convergence studies in elasticity with an independent basis isogeometric boundary element formulation	Sérgio Cordeiro
13:50 - 14:10	1562	Expansion of a non-intrusive implementation of the Generalized Finite Element Method - Global-Local	Ana Clara Pedras Bueno
14:10 - 14:30	1799	A three-dimensional numerical model for thermoplastic welding process	Daniel Bernardes de Castro
14:30 - 14:50	1117	OPTIMIZING TRUSS STRUCTURES WITH NATURAL FREQUENCY CONSTRAINTS USING THE CROSS-ENTROPY METHOD	Marcos Vinicius dos Santos Issa

Session: SOL - Viscoelasticity and Viscoplasticity: Models, Experiments and Applications - THU-4 RIB

Chair: Eduardo Fancello

Time	Code	Title	Presenter
14:50 - 15:10	0190	VIBRATION ATTENUATION IN COMPOSITE MATERIALS BY VISCOELASTIC MATERIALS	Herbert Gomes
15:10 - 15:30	0456	Determination of the reinforcement steel area in pure bending considering the stress-strain diagram with the creep of concrete	Cibele Mota Menezes
15:30 - 15:50	1543	ANALYTICAL SOLUTIONS FOR THE FOUR PARAMETER BURGERS MODEL USING THE GENERALIZED INTEGRATING FACTOR	Matheus Janczkowski Fogaça
15:50 - 16:10	2181	Numerical analysis of dissipation in a large strain thermo-viscoelastic constitutive model	Péricles Rafael Pavão Carvalho
16:10 – 16:30	1791	Effect of graphene content on the mechanical properties of graphene reinforced aluminum matrix composites	Fellipe Fiorelli Talamini

Thursday 07 - Room JOAQUINA

Session: SOL - Composite Materials and Structures - THU-1 JOA

Chair: Marcílio Alves

Time	Code	Title	Presenter
08:00 - 08:20	0110	Effective fourth-order elasticity tensor of periodic porous materials by a 3D computational homogenization procedure	Wanderson Ferreira dos Santos
08:20 - 08:40	0198	Analysis of mesh types applied to the numerical modeling of a composite overwrapped pressure vessel	Lucas Agne
08:40 - 09:00	0262	Comparing Tsai-Wu and Tsai-Hill Failure Criteria for High-Pressure Vessel Design under Uncertainty	Henrique Cordeiro Novais
09:00 - 09:20	0279	Comparison of Simultaneous and Sequential Approaches to Optimizing the Compliance of Variable Stiffness Plate Reinforcements	Eduardo da Rosa Vieira
09:20 - 09:40	0292	Comparing DD and QUAD Laminates for Single Lap Joints	Lucas Vignoli
09:40 - 10:00	0731	VSPKc Micromechanical Model - A Novel ROM-based Approach	Lucas Vignoli

Session: SOL - Numerical Methods: FEM, XFEM, GFEM, BEM and other methods - THU-2 JOA

Chair: Marco Lúcio Bittencourt

Time	Code	Title	Presenter
10:30 - 10:50	0112	The Enriched Modified Local Green's Function Method applied to static fracture mechanic problems	Ramon Macedo Corrêa
10:50 - 11:10	0206	DEVELOPMENT OF A PYTHON SCRIPT FOR STRUCTURAL ANALYSIS BASED ON THE FINITE ELEMENT THEORY	Roberto Wagner Bressan Junior
11:10 - 11:30	0660	Static Stiffness Correlation of Elastomeric Bushings using Finite Element Analysis	Luiz Felipe Sallani Simioni
11:30 - 11:50	0722	The Use of Cells for Accurate Body Forces Modelling in the Isogeometric Boundary Element Method (IGABEM): Comparison with the Galerkin Vector Approach and Insights for Nonlinear Problems.	Deborah Cristina Nardi
11:50 - 12:10	0724	Improving Accuracy with Isogeometric Boundary Element Method (IGABEM): Applications in Potential Theory and Linear Elasticity	Deborah Cristina Nardi

Session: SOL - Composite Materials and Structures - THU-3 JOA

Chair: Paulo de Tarso Mendonça

Time	Code	Title	Presenter
13:30 - 13:50	1038	Fatigue life calculation using incremental damage	Gabriel Hofmam
13:50 - 14:10	1179	Numerical investigation of non-smooth solutions in finite elasticity	Lucas Rocha
14:10 - 14:30	1520	ON THE EVALUATION OF ELATOPLASTIC STRESSES DISTRIBUTION AROUND A CRACK TIP	Mateus Bastos Neiva
14:30 - 14:50	1614	3D Finite Elements Analysis through Beam-to-Beam Contacts on Transmission Line Conductors	Bruno Pedrosa

Session: SOL - Composite Materials and Structures & Fatigue and Failure Analyses - THU-4 JOA

Chair: Marco Lúcio Bittencourt

Time	Code	Title	Presenter
14:50 - 15:10	1873	Statistical comparison of Taguchi method and full factorial on the quality of drilling on FRP composite	Felipe Rossato
15:10 - 15:30	1943	Permanent Regime Configurations for Orthogonal Cutting Analysis by Limit Analysis	Luísa de Amorim Makhoul Gomes
15:30 - 15:50	2276	A continuum theory for evaluating the impact of stress on the kinetics of hydrogen uptake and release in metal hydrides	Natanaele S. Medeiros
15:50 - 16:10	1478	FAULT ANALYSIS IN ROAD SPRINTER OM611	Ronalty Rios
16:10 - 16:30	2040	Algorithm implementation for automated modeling of a composite structure	Iuri Hermes Müller

FRIDAY 08 - Room RIBEIRÂO

Session: SOL - Numerical Methods: FEM, XFEM, GFEM, BEM and other methods - FRI-1 RIB

Chair: Marco Lúcio Bittencourt

Time	Code	Title	Presenter
08:00 - 08:20	0810	A positional FEM formulation for geometrically nonlinear analysis of laminated plates and shells: regularization of transverse normal and shear stresses	Vinícius Souza
08:20 - 08:40	1149	Application of design of experiments and dimensonal analysis for multi-material cantilever beam characterization	Eduardo Telli
08:40 - 09:00	1210	NUMERICAL MODELING BY THE FINITE ELEMENT METHOD OF RAILWAY TRACKS FOR ANALYSIS OF RESIDUAL STRESSES GENERATED BY THE FBW PROCESS.	Matheus Miranda Duarte de Castro
09:00 - 09:20	1358	Isogeometric Analysis in solid mechanics: exploring precision and versatility	Beatriz Corchak Veiga
09:20 - 09:40	1504	DESIGN OF SHAPE FUNCTIONS FOR ELIMINATING THE GIBBS PHENOMENON	Sérgio Cordeiro
09:40 - 10:00	2128	Modeling of Functionally Graded Material (FGM) plates bending via GFEM	Paulo de Tarso Mendonça

Friday 08 -Room SAMBAQUI 3

Session: SOL - Wave Propagation & Structural Reliability Methods and Reliability-Based Design Optimization - FRI-2 SAM 3

Chair: Paulo de Tarso Mendonça

Time	Code	Title	Presenter
10:30 - 10:50	0124	A Study on the Rayleigh Wave Attenuation Provided by Gabion Mats using a Coupled IBEM-FEM Model	Leonardo Antoniazzi Marques
10:50 - 11:10	0844	Wave attenuation using 2-D metamaterial thin plates with shunted piezo-patches	Edson Jansen Pedrosa de Miranda Junior
11:10 - 11:30	1105	Improved stochastic modeling of hygrothermal influences on the buckling response of laminated composite plates	Henrique Santos
11:30 - 11:50	1136	Stochastic Optimization of a Rotating Machine Through Reliability-Based Design Optimization	Eduardo Henrique de Paula
11:50 - 12:10	0115	Shear in Welded T-joints	MARCIO LINS DE FIGUEIREDO

Friday 08 - Room CAMPECHE

Session: SOL - Structural Statics and Dynamics - FRI-1 CAM

Chair: Marcílio Alves

Time	Code	Title	Presenter
08:00 - 08:20	0219	Numerical Investigation of Cross Influence between Piles in the Dynamic Behavior of Pile Foundations	Amanda Oliveira
08:20 - 08:40	0832	A New Family of Auxetic Beams: The Elliptical S-Chiral Design Investigation	Nathália Mello Mascarenhas Paixão
08:40 - 09:00	1239	Structural analysis of maritime fenders.	Yuri Fernandes
09:00 - 09:20	1297	Modal analysis of a damaged beam with variation of crack geometric parameters	Hudson Douglas Silva Morais
09:20 - 09:40	1489	STUDY ON THERMOMECHANICAL BEHAVIOR OF COOLED DIE APPLIED TO HOT STAMPING PROCESS	Gregory Bregion Daniel
09:40 - 10:00			

Session: SOL - Elasticity, Plasticity, Damage and Fracture Mechanics: Models, Experiments and Applications - FRI-2 CAM

Chair: Marco Lúcio Bittencourt

Time	Code	Title	Presenter
10:30 - 10:50	0105	Full isotropic yield surfaces for porous ductile materials by computational homogenization	Wanderson Ferreira dos Santos
10:50 - 11:10	0200	J-Integral study in hyperelastic material submitted to a mode I fracture loading	Lucas Barboza
11:10 - 11:30	0276	ASSESSMENT OF CORRELATION BETWEEN SIMULATIONS AND STANDARDIZED TESTS OF THERMOPLASTICS FROM DIFFERENT TRUE STRESS-STRAIN EQUATIONS	Gabriel Ramos Ferreira
11:30 - 11:50	0278	A COMPARATIVE EVALUATION OF A SUITABLE CONSTITUTIVE MODEL FOR THERMOPLASTICS WITH ONE BASED ON THE VON MISES CRITERION	Gabriel Ramos Ferreira
11:50 - 12:10	0310	PHYSICS-INFORMED NEURAL NETWORKS FOR SOLVING ELASTICITY PROBLEMS	Estevão Fuzaro de Almeida

Session: SOL - Elasticity, Plasticity, Damage and Fracture Mechanics: Models, Experiments and Applications - FRI-3 CAM

Chair:

Time	Code	Title	Presenter
13:30 - 13:50	1104	Influence of T-stress on the Processed Zone Around Crack Tip in CFRP Plates	Daniel de Macedo Barreto Netto
13:50 - 14:10	1161	Effective elastic properties of concrete by a 3D computational homogenization approach	Wanderson Ferreira dos Santos
14:10 - 14:30			
14:30 - 14:50	1663	Novel Implementation of Asymptotic Homogenization (NIAH) Applied to Frame-Like Periodic Materials	Pablo Andrés Muñoz Rojas

Session: SOL - Elasticity, Plasticity, Damage and Fracture Mechanics: Models, Experiments and Applications - FRI-4 CAM

Chair:

Time	Code	Title	Presenter
14:50 - 15:10	1638	Morphological properties evaluation of porous and anisotropic materials	Lívia Nogueira
15:10 - 15:30	1793	A 3D constitutive model for modelling milling induced damage in composite laminates	Sergio Moni
15:30 - 15:50	1831	A study on the changes in structural response of trusses fiber-reinforced post-installation	Bárbara Minosso
15:50 - 16:10			

FFSI
Fracture, Fatigue & Structural Integrity

Thursday, Dec 7	
Time	**Sessions**
8:00 - 10:00	
10:00 - 10:30	Coffee break
10:30 - 12:10	
12:10 - 13:30	lunch
13:30 - 14:50	
14:50 - 16:10	THU-4 SAM 1
16:10 - 17:00	Coffee break & Poster presentations

Friday, Dec 8	
Time	**Sessions**
8:00 - 10:00	FRI-1 JOA
10:00 - 10:30	Coffee break
10:30 - 12:10	FRI-2 JOA
12:10 - 13:30	lunch
13:30 - 14:50	FRI-3 JOA
14:50 - 16:10	FRI-4 JOA

Fracture, Fatigue & Structural Integrity
ORAL PRESENTATIONS

Thursday 07 - Room SAMBAQUI 1

Section: FRACTURE - Pipelines and Pipes - THU-4 SAM 1

Chair: Mariano Arbelo

Time	Code	Title	Presenter
14:50 - 15:10	0233	SIF FOR TRUNNIONS PIPE SUPPORTS: A COMPARISON BETWEEN FEA DATA AND ASME B31J WITH FOCUS ON LARGE BORE PIPES	MARIA LUIZA SCORALICK SALDANHA
15:10 - 15:30	1934	Risk quantification in corroded offshore pipelines using semi-empirical methods and finite element models	Elyaquim Domingos Torres
15:30 - 15:50	2138	EFFECT OF SILICA ADDITION IN THE ADHESIVE PRIMER LAYER OF COMPOSITE SYSTEMS USED TO REPAIR LEAK DEFECTS IN PIPELINES	Heraldo da Costa Mattos
15:50 - 16:10			

Friday 08 - Room JOAQUINA

Section: FRACTURE - Fatigue - FRI-1 JOA

Chair: Eduardo Fancello

Time	Code	Title	Presenter
08:00 - 08:20	0152	Fatigue life prediction of medium carbon steel with an artificial defect based on small crack growth relations	Nathalia Santos
08:20 - 08:40	0514	Use of Stress Gradient Factor for Welded Structures	Antonio Carlos de Oliveira Miranda
08:40 - 09:00	0535	FATIGUE CRACK GROWTH IN LASER-TREATED AA2198-T851 ALLOY UNDER ZERO-TO-TENSION LOADING	Cauê Carvalho
09:00 - 09:20	0804	Numerical and experimental analysis of fatigue life of an assembled lightweight crankshaft	Gabriel Silva
09:20 - 09:40	1064	Comparative study of multiaxial fatigue life prediction methodologies based on critical plane approaches: a review of Maximum Variance Method (MVM) and optimization algorithms	Felipe Maganha de Lima
09:40 - 10:00	1074	Analysis of Fatigue Crack Growth Behaviour and the Influence of Corrosion of ASTM A285C Steel Applied in Kraft Continuous Digester	Alexandre Nakayama

Section: FRACTURE - Pressure Vessels & Structural Integrity - FRI-2 JOA

Chair: Eduardo Fancello

Time	Code	Title	Presenter
10:30 - 10:50	0726	ANALYSIS OF SEMI-ELLIPTICAL CRACK GROWTH IN PRESSURE VESSELS	Hallan Ladeira
10:50 - 11:10	0319	Mechanical-structural Monitoring System Based in Model Analysis for Bucket Wheel Excavators	Reuel Vieira
11:10 - 11:30	1448	Characterization and experimental analysis of Stress Corrosion Cracking and its influence on the structural integrity and mechanical properties of the magnesium alloy WE 43.	Geraldine Hincapie Diaz
11:30 - 11:50	2006	Assessment of structural damage through acoustic emissions	Gabriel Macedo Silveira
11:50 - 12:10	2151	ASSESSMENT OF MECHANICAL PERFORMANCE IN A PLATE HEAT EXCHANGER ENHANCED BY A THICKER REINFORCEMENT PLATE	Giovani Martins

Section: FRACTURE - Fatigue - FRI-3 JOA

Chair: Eduardo Fancello

Time	Code	Title	Presenter
13:30 - 13:50	1122	The generalization and analysis of the Stüssi model for several fatigue damage parameters	Diogo Karmouche
13:50 - 14:10	1347	Influence of microstructure on the fatigue properties of Ti-6Al-4V alloy with equiaxed and fully lamellar structures	Martin Ferreira Fernandes
14:10 - 14:30	1869	Finite element analysis of artificial defects as stress relievers in fretting problems	Raphael Araujo Cardoso
14:30 - 14:50	0380	Application of Micromechanically-Based Damage Model to Ductile Tearing Behaviour of Interacting Surface Cracks	Gabriel de Castro Coêlho

Section: FRACTURE - Fatigue - FRI-4 JOA

Chair:

Time	Code	Title	Presenter
14:50 - 15:10	0466	Fracture Nucleation and Propagation Based on Discrete Topological Derivative	William Garcia
15:10 - 15:30	1652	Notched Strength of Woven Reinforcement Composites Under Mixed-Mode In-Plane Loading	Felipe Ruivo Fuga
15:30 - 15:50	0084	Numerical Methodology for Determining MBL of Metalic Chains	Artur Silva Pereira
15:50 - 16:10			

NONL
Non-linear Phenomena

Tuesday, Dec 5	
Time	**Sessions**
8:00 - 10:00	TUE-1 BRV
10:00 - 10:30	Coffee break
10:30 - 12:10	TUE-2 BRV
12:10 - 13:30	lunch
13:30 - 14:50	TUE-3 BRV
14:50 - 16:10	
16:10 - 17:00	Coffee break & Poster presentations

Non-linear Phenomena
ORAL PRESENTATIONS

Tuesday 05 - Room BRAVA

Session: NONL - Session: NONL - Appli. of Nonlinear Systems in Engineering – TUE-1 BRV

Chair: Paulo Paupitz Gonçalves

Time	Code	Title	Presenter
08:00 - 08:20	1373	2-DOF discrete model for non-linear vibrations analysis of guyed towers considering unilateral contact cables	Frederico Martins Alves da Silva
08:20 - 08:40	1468	Influence of a non-continuous and unilateral elastic base on the nonlinear vibrations of a cylindrical panel	Frederico Martins Alves da Silva
08:40 - 09:00	1548	Non-linear Electrical Submersible Pump Model for Model Predictive Control considering viscous effects	Mauricio Barrios Castellanos
09:00 - 09:20	2248	Analysis of the dynamics and energy efficiency of a nonideal portal frame structural support system coupled to a passive absorber	Angelo Marcelo Tusset
09:20 - 09:40	0030	Numerical and experimental investigation of the dynamic behavior of a CONVEYOR BELT driven by a non-ideal source	Leandro Oliveira
09:40 - 10:00	0082	Nonlinear dynamics of the chaotic pendulum coupled a DC motor and a DC generator	Rafael Avanço

Session: NONL - Analytical Methods & Appli. of Nonlinear Systems in Engineering & Numerical Methods - TUE-2 BRV

Chair: Américo Cunha

Time	Code	Title	Presenter
10:30 - 10:50	0571	CHAOS CONTROL USING A ROBUST METHOD FOR THE STABILIZATION OF UNSTABLE PERIODIC ORBITS	Alessandro Zachi
10:50 - 11:10	2404	CLASSIFICATION OF HEART RHYTHM DYNAMICS USING ARTIFICIAL NEURAL NETWORKS	Igor Fortuna
11:10 - 11:30	0784	On the design of nonlinear resonators to improve the displacement transmissibility of mono-coupled periodic rod structures	Felipe Anezio
11:30 - 11:50			
11:50 - 12:10			

Session: NONL - Experimental Methods in Nonlinear Phenomena & Inverse Problems in Nonlinear Phenomena & Nonlinear Mechanics - TUE-3 BRV

Chair: José Manoel Balthazar

Time	Code	Title	Presenter
13:30 - 13:50	0050	Nonlinear dynamics of a cantilever beam excited by a limited power supply with magnetic interaction	José Manoel Balthazar
13:50 - 14:10	2217	MECHANICAL EFFECTS ON TURING PATTERN FORMATION IN BULK DIFFUSION AND SURFACE REACTION-DIFFUSION SYSTEMS	Fernando Pereira Duda
14:10 - 14:30	0454	Study of the first mode of vibration of transmission line cables via Rayleigh's method and elastic line equation	Cibele Mota Menezes
14:30 - 14:50			

COMB
Combustion

Monday, Dec 4	
Time	Sessions
9:10 -10:30	MON-1 CAM
10:30 - 10:50	Coffee break
10:50 - 12:10	
12:10 - 13:30	lunch
13:30 - 14:50	
14:50 - 16:10	
16:10 - 17:00	Coffee break & Poster presentations

Tuesday, Dec 5	
Time	Sessions
8:00 - 10:00	
10:00 - 10:30	Coffee break
10:30 - 12:10	TUE-2 CAM
12:10 - 13:30	lunch
13:30 - 14:50	TUE-3 CAM
14:50 - 16:10	TUE-4 CAM
16:10 - 17:00	Coffee break & Poster presentations

Wednesday, Dec 6	
Time	Sessions
8:00 - 10:00	
10:00 - 10:30	Coffee break
10:30 - 12:10	
12:10 - 13:30	lunch
13:30 - 14:50	WED-3 CAM
14:50 - 16:10	WED-4 CAM
16:10 - 17:00	Coffee break & Poster presentations

Thursday, Dec 7	
Time	Sessions
8:00 - 10:00	
10:00 - 10:30	Coffee break
10:30 - 12:10	
12:10 - 13:30	lunch
13:30 - 14:50	
14:50 - 16:10	
16:10 - 17:00	Coffee break & Poster presentations

Friday, Dec 8	
Time	Sessions
8:00 - 10:00	
10:00 - 10:30	Coffee break
10:30 - 12:10	
12:10 - 13:30	lunch
13:30 - 14:50	
14:50 - 16:10	

Combustion

ORAL PRESENTATIONS

Monday 04 - Room CAMPECHE

Session: COMB - Laminar Flames & Solid Fuel Combustion - MON-1 CAM

Chair: Fernando Marcelo Pereira

Time	Code	Title	Presenter
09:10 - 09:30			
09:30 - 09:50			
09:50 - 10:10	1801	Wall Temperature Influence On Confined Laminar Equidiffusional Jet Flames	Albino Leiroz
10:10 - 10:30			

Tuesday 05 - Room CAMPECHE

Session: COMB - Spray, Droplet, and Supercritical Combustion & Stationary Combustion Systems and Control of Greenhouse Gas Emissions & Other Concepts on Combustion & Turbulent Flames - TUE-2 CAM

Chair: Andrés Armando Mendiburu Zevallos

Time	Code	Title	Presenter
10:30 - 10:50	0058	VALIDATION OF AN ETHANOL-REDUCED CHEMICAL KINETIC MECHANISM AT SUPERCRITICAL CONDITIONS USING REAL GAS STATE EQUATION	Paulo Vitor Ribeiro Plácido
10:50 - 11:10	0579	Numerical study of the spray pattern in high pressure injected ethanol	Guenther Krieger Filho
11:10 - 11:30	2173	Prospection for advanced materials properties for carbon capture from combustion gases	Marcio Carzino
11:30 - 11:50	0815	NUMERICAL STUDY OF DISTORTED TULIP FLAME PROPAGATION IN CLOSED CHANNELS	Sebastian Valencia
11:50 - 12:10	2065	NUMERICAL SIMULATION OF A TURBULENT JET DIFFUSION FLAME OF DIMETHYL ETHER USING LES	Jonatan Ismael Eisermann

Session: COMB - Internal Combustion Engines - TUE-3 CAM

Chair: Ramon Eduardo Pereira Silva

Time	Code	Title	Presenter
13:30 - 13:50			
13:50 - 14:10	0743	Ethanol charge stratification in supercharged spark-ignition low-displacement engines: An approach to energy efficiency	Tulio Oliveira
14:10 - 14:30	0877	Combustion and emission analysis of a single-cylinder compression ignition engine in a dual-fuel mode with HVO and biogas: a CFD approach	Gustavo Vieira Frez
14:30 - 14:50	0994	STUDIES OF THE INFLUENCE IN THE PERFORMANCE PARAMETERS IN SPARK IGNITION ENGINE OF TWO HEAT TRANSFER MODELS IN A PHENOMENOLOGICAL MODEL USING BIOMETHANE, BIOGAS AND ETHANOL	Nelson Ferreira Gonçalves Junior

Session: COMB - Internal Combustion Engines - TUE-4 CAM

Chair: Albino Leiroz

Time	Code	Title	Presenter
14:50 - 15:10	1060	Study of burn rate models in a zero-dimensional model for spark ignition internal combustion engines operating on biogas, biomethane and ethanol	Jullyane Raquel Almeida Nunes
15:10 - 15:30	1728	Energy, Exergy, Performance and Combustion Assessment of a Small Diesel Engine Fueled with Crambe abyssinica Methyl Ester	Ramon Eduardo Pereira Silva
15:30 - 15:50	1909	STDUDY OF THE INJECTION ADVANCE IN A DUAL ENGINE WITH COMPRESSION IGNITION USING NATURAL GAS AND BIODIESEL.	MARCIO ROCHA
15:50 - 16:10	2201	Implementation of a test platform hardware in the loop “HIL” for internal combustion and turbocharged engines	Fernando Pavie Frejat
16:10 – 16:30	0133	Energy generation in rankine cycle power plant from the incineration of forest residues	Gilvana Scoculi de Lira

Wednesday 06 - Room CAMPECHE

Session: COMB - Emissions - WED-3 CAM

Chair: Leonel Rincon Cancino

Time	Code	Title	Presenter
13:30 - 13:50	0440	EVALUATION OF HEAT TRANSFER MODELS IN THE LCA OF BIOMETHANE, ETHANOL, GH2, AND GASOLINE IN BRAZIL	Felipe Diniz
13:50 - 14:10	0873	Ecological efficiency of compression ignition engine using diesel, biodiesel and HVO	Nelly Vanessa Pérez Rangel
14:10 - 14:30	1014	NUMERICAL STUDY OF THE BUOYANT DIFFUSION FLAMES STABILITY IN A RECTANGULAR GROOVE	Guilherme Alvarez
14:30 - 14:50	0563	TRANSIENT BEHAVIOR OF DIFFUSION FLAMES: BUOYANCY INDUCING FLICKERING IN GROOVE GEOMETRY	Guilherme Alvarez

Session: COMB - Fire Science and Technology & Gas Turbine and Rocket Engine Combustion & Chemical Kinetics and Modeling - WED-4 CAM

Chair: Roberto Wolf Francisco Junior

Time	Code	Title	Presenter
14:50 - 15:10	2125	A STUDY OF GAS INTERCHANGEABILITY IN HIGH-POWER BURNER USING BY-PRODUCT OF THE STEEL MAKING PROCESS	Anton Verissimo
15:10 - 15:30	2155	VISUALIZATION OF LUMINOSITY VARIATION IN THE COMBUSTION CHAMBER OF A DIESEL CYCLE ENGINE USING HIGH SPEED VIDEO CAMERA	Rogério Jorge Amorim
15:30 - 15:50	0972	Numerical Characterization of Biogas Combustion with Laminar Flame Velocity and Ignition Delay Time in Conditions Analogous to Gas Turbine Combustors.	Alexandre Costa Goulart
15:50 - 16:10	2146	Kinetic Parameters and Combustion Thermal Behavior of Açaí Fibrous Seed Residue by Thermogravimetric Analysis	Fernando Henrique de Barbosa dos Santos

DESG
Engineering Design

Thursday, Dec 7	
Time	**Sessions**
8:00 - 10:00	**THU-1 CAM**
10:00 - 10:30	**Coffee break**
10:30 - 12:10	**THU-2 CAM**
12:10 - 13:30	lunch
13:30 - 14:50	**THU-3 CAM**
14:50 - 16:10	**THU-4 CAM**
16:10 - 17:00	**Coffee break & Poster presentations**

Engineering Design
ORAL PRESENTATIONS

Thursday 07 - Room CAMPECHE

Session: DESG - Engineering Design + AI and Industry 4.0 - THU-1 CAM

Chair: Rodrigo Bastos Fernandes

Time	Code	Title	Presenter
08:00 - 08:20			
08:20 - 08:40	1266	Application of Low-Cost Microcontrollers for Temperature and Speed Analysis in Rotating Systems	José Sávyo Soares Lira
08:40 - 09:00	2091	ANALYSIS OF URBAN CYCLING MOBILITY USING IOT TECHNOLOGY	Ricardo Israel
09:00 - 09:20	2239	Challenges in the Implementation Processes of Augmented Reality in the Manufacturing Industry	Rafael Umada Cohen
09:40 - 10:00			

Session: DESG - Case Studies and Industrial Experiences in Engineering & Product and Project Management & Reliability and Maintainability - THU-2 CAM

Chair: Rodrigo Bastos Fernandes

Time	Code	Title	Presenter
10:30 - 10:50	1429	**A thermal-analysis guided redesigning of uninterruptible power supply for energy storage applications**	**Rafael Guariza**
10:50 - 11:10	2197	**DEVELOPMENT OF HYDRO JETTING NOZZLES FOR INSULATOR WASHING**	**Lucas Luzzi**
11:10 - 11:30	1329	**Reliability investigation for load-sharing models applied to refrigeration systems**	**tiago botega**
11:30 - 11:50	1488	**Startup Experience Initiative: A Modern Approach to Integrating Education, Research, Entrepreneurship, and Soft Skills Training.**	**André Bellin Mariano**
11:50 - 12:10			

Session: DESG - Design Process, Methodology, Methods, and Tools - THU-3 CAM

Chair: Jonny Carlos da Silva

Time	Code	Title	Presenter
13:30 - 13:50			
13:50 - 14:10	0239	**Methodology for requirements and system design for the detection of dangerous driving**	**Vinicius Marini**
14:10 - 14:30	0408	**Methodology for obtaining 3D CAD models from complex objects through digitization and numerical adjustment: heat exchanger plates**	**Bruna Larissa Tascheck**
14:30 - 14:50	0542	**A NEW PROCESSES MANAGEMENT METHOD ORIENTED TO SATISFY ORGANIZATIONAL NEEDS**	**Joel Carlos V. Reinhardt**

Session: DESG - Design Process, Methodology, Methods, and Tools - THU-4 CAM

Chair: Jonny Carlos da Silva

Time	Code	Title	Presenter
14:50 - 15:10	0863	**A mathematical model of a device for generating electricity from a sustainable hydrogen production unit within an acceptable level of risk**	**Luiz Assumpção**
15:10 - 15:30	1168	**Development of the product structure tree of a modular micro-hydropower plant**	**Leticia Renata De carvalho**
15:30 - 15:50	2236	**Integrated Product Development Methodology Applied to a Resonant Fatigue Testing Bench for Shafts and Crankshafts**	**Artur Cantisano**
15:50 - 16:10			

OFFS
Offshore & Petroleum Engineering

Monday, Dec 4	
Time	Sessions
9:10 -10:30	MON-1 RIB
10:30 - 10:50	Coffee break
10:50 - 12:10	MON-2 RIB
12:10 - 13:30	lunch
13:30 - 14:50	MON-3 RIB
14:50 - 16:10	
16:10 - 17:00	Coffee break & Poster presentations

Tuesday, Dec 5	
Time	Sessions
8:00 - 10:00	TUE-1 RIB
10:00 - 10:30	Coffee break
10:30 - 12:10	
12:10 - 13:30	lunch
13:30 - 14:50	
14:50 - 16:10	
16:10 - 17:00	Coffee break & Poster presentations

Wednesday, Dec 6	
Time	Sessions
8:00 - 10:00	
10:00 - 10:30	Coffee break
10:30 - 12:10	
12:10 - 13:30	lunch
13:30 - 14:50	
14:50 - 16:10	
16:10 - 17:00	Coffee break & Poster presentations

Thursday, Dec 7	
Time	Sessions
8:00 - 10:00	THU-1 RIB
10:00 - 10:30	Coffee break
10:30 - 12:10	THU-2 RIB
12:10 - 13:30	lunch
13:30 - 14:50	
14:50 - 16:10	
16:10 - 17:00	Coffee break & Poster presentations

Friday, Dec 8	
Time	Sessions
8:00 - 10:00	
10:00 - 10:30	Coffee break
10:30 - 12:10	FRI-2 RIB
12:10 - 13:30	lunch
13:30 - 14:50	FRI-3 RIB
14:50 - 16:10	FRI-4 RIB

Offshore & Petroleum Engineering

ORAL PRESENTATIONS

Monday 04 - Room RIBEIRÃO

Session: OFFS - Offshore and Petroleum Engineering - MON-1 RIB

Chair: Emilio Paladino

Time	Code	Title	Presenter
09:10 - 09:30			
09:30 - 09:50	2063	NUMERICAL SIMULATION OF GAS LIFT INJECTION AND ITS EFFECTS ON THE SLUGGING PHENOMENON IN OFFSHORE PRODUCTION	Tony Herbert Freire de Andrade
09:50 - 10:10	2225	Control performance improvement of light cut naphtha extraction via model-free adaptive filter	Lucas Moura Gomes
10:10 - 10:30	2337	Waterflooding optimization by producer water-cut using PSO Algorithm	Cuellar sanchez

Session: OFFS - Offshore and Petroleum Engineering - MON-2 RIB

Chair: Celso Pesce

Time	Code	Title	Presenter
10:50 - 11:10	0723	OCEAN CURRENT ESTIMATION FOR A TURRET-MOORED FPSO USING NEURAL NETWORKS	Pedro Felipe Lavra Dias
11:10 - 11:30	0920	Three-dimensional Navier-Stokes simulations of the displacement flow between miscible fluids with nonmonotonic viscosity profiles	Bruno Jorge Macedo dos Santos
11:30 - 11:50	0926	Displacement flows of miscible fluids through axisymmetric expansion-contractions	FREDERICO CARVALHO
11:50 - 12:10	0931	EVALUATING THE IMPACTS OF A NEURAL NETWORK TOPOLOGY ON ANCHOR RADIUS' ESTIMATION IN MOORING LINES	Johne Trindade

Session: OFFS - Offshore and Petroleum Engineering - MON-3 RIB

Chair: André Fujarra

Time	Code	Title	Presenter
13:30 - 13:50	1096	Experimental investigation of the effect of scale inhibitors on the pressure drop and on the deposition inside hydrocyclones	Juliana Ferreira Gonçalves
13:50 - 14:10	1143	Investigation of a magnetic anti-scaling device for fouling mitigation in valves	Daniel Imbelloni Costa e Silva Morais
14:10 - 14:30	1167	Study of inorganic fouling deposition in a hydrocyclone: comparison between numerical simulation and experimental results.	Andrei Hünemeyer Dullius
14:30 - 14:50	2024	Numerical simulation of the influence of severe slugging on offshore production systems	Phillipe Augusto Sales dos Santos

Tuesday 05- Room RIBEIRÃO

Session: OFFS - Offshore and Petroleum Engineering - TUE-1 RIB

Chair: Oscar Hernandez Rodrigues

Time	Code	Title	Presenter
08:00 - 08:20	1231	Modeling Flow Restart Effects on Annular Pressure Build-up	Ricardo Knesebeck
08:20 - 08:40	1242	Data-driven multiphase flow parameters prediction capabilities and limitations on a real oil well production data	Anderson Faller
08:40 - 09:00	1252	Equivalence between Brinkman, single and double continuum models in the description of single-phase flow in 2D vuggy porous media	Daniel Vaz Campos
09:00 - 09:20	1394	Experimental identification of drag hydrodynamic parameters for an open frame ROV used in the stock assessment of scallops	Paola Fonseca
09:20 - 09:40	1470	Circulating Water Channel for Investigations of Fluid-Structure Interactions in Low Reynolds Numbers	Karen Soares
09:40 - 10:00	1532	Studies about the dimensioning of flanged unions of industrial valves for applications in Oil & Gas installations	Felipe Frizon

Thursday 07 – Room RIBEIRÃO

Session: OFFS - Offshore and Petroleum Engineering - THU-1 RIB

Chair: Moises Marcelino Neto

Time	Code	Title	Presenter
08:00 - 08:20	2381	DISTANCE-TO-TRAP WEIGHTING FUNCTIONS FOR SELECTION AND RANKING OF CO2 STORAGE SITES	Gustavo Charles Peixoto de Oliveira
08:20 - 08:40	1594	Numerical Investigation of Water Alternating Gas Injection Ratios on Multiphase Flow in Porous Media for Enhanced Oil Recovery	Vinicius Rafael de Freitas
08:40 - 09:00	1676	Experimental Investigation of the Rayleigh Damping Approximation in a Vibrating Catenary Pipe	Lívia Rampinelli Bozzo
09:00 - 09:20	1712	Experimental investigation of emulsion flow at pore scale in fractured porous media	Alandmara Rosa Dionizio Leôncio
09:20 - 09:40			
09:40 - 10:00			

Session: OFFS - Offshore and Petroleum Engineering - THU-2 RIB

Chair: Celso Perez Fernandez

Time	Code	Title	Presenter
10:30 - 10:50	1714	Characterization of two-dimensional reservoir based on transient pressure and temperature data using ensemble-based method	Jose Cardoso
10:50 - 11:10	1723	A comparative analysis of automated contact angle measurement methods for X-ray microtomographic images of two-phase flow in porous media	Christoph Zevenbergen
11:10 - 11:30	1751	STUDY OF CALCIUM CARBONATE DEPOSITION INSIDE A PLATE HEAT EXCHANGER	Karolyna Gomes
11:30 - 11:50	1551	Effect of Relative Permeability Curves on Near Well Gas-Condensate Flow	Marcio CARVALHO
11:50 - 12:10			

Friday 08 - Room RIBEIRÃO

Session: OFFS - Offshore and Petroleum Engineering - FRI-2 RIB

Chair: Jader R. Barbosa

Time	Code	Title	Presenter
10:30 - 10:50	0053	Fuel Consumption Estimation for Offshore Support Vessels	Marlon Silva
10:50 - 11:10	0273	Non-Newtonian flow displacement in well operations	Monica Naccache
11:10 - 11:30	0365	Experimental analysis of the interactions between air microbubbles and oil droplets immersed in water inside a model flotator	Pedro Morales
11:30 - 11:50	0581	Experimental investigation into the impact of stage number on the performance of ESP operating with a gas-liquid mixture.	Yan Capellaro
11:50 - 12:10	1755	Pressure and temperature response of stratified reservoirs during well tests	Vinicius Mattoso Reis Da Silva

Session: OFFS - Offshore and Petroleum Engineering - FRI-3 RIB

Chair: Celso Morooka

Time	Code	Title	Presenter
13:30 - 13:50	1770	Calcium carbonate precipitation risk index for downhole completions: A combined thermodynamic, kinetic and CFD modeling approach	Vinicius Gustavo Poletto
13:50 - 14:10	1842	Application of a StoSAG Algorithm using a Modified Cost Function and Group Constraints in a Three-Phase Reservoir Model	Marco Antonio Nobre Rangel de Almeida
14:10 - 14:30	1952	Experiments of Flow-Induced Vibration on Models in Regimes of Low Reynolds Numbers: PART 1 - Circular-Columns Arrangements	André Fujarra
14:30 - 14:50	1953	Experiments of Flow-Induced Vibration on Models in Regimes of Low Reynolds Numbers: PART 2 - Square-Columns Arrangements	Adriana Wallbach

Session: OFFS - Offshore and Petroleum Engineering - FRI-4 RIB

Chair: Rafael de Cerqueira

Time	Code	Title	Presenter
14:50 - 15:10	1175	Parametric Analysis of the Annular Pressure Change Mitigation with Rupture Disks	Jader Barbosa
15:10 - 15:30	2409	Flows with Cavitation of Biodiesel in Pipelines	Elias Dias
15:30 - 15:50	2422	EXPERIMENTAL DETERMINATION OF ADDED MASSES FOR AN OPEN FRAME ROV THROUGH DAMPED FREE OSCILLATIONS	Paola Fonseca
15:50 - 16:10	2431	THE RHEOLOGICAL BEHAVIOR OF DRILLING FLUIDS AT HPHT CONDITIONS: A PROPOSAL FOR A CONSTITUTIVE EQUATION FITTING METHODOLOGY	Diogo Elias da Vinha Andrade

SMART
Smart Materials & Structures

Wednesday, Dec 6	
Time	**Sessions**
8:00 - 10:00	WED-1 BRV
10:00 - 10:30	Coffee break
10:30 - 12:10	
12:10 - 13:30	lunch
13:30 - 14:50	WED-3 BRV
14:50 - 16:10	WED-4 BRV
16:10 - 17:00	Coffee break & Poster presentations

Smart Materials & Structures
ORAL PRESENTATIONS

Wednesday 06 - Room BRAVA

Session: SMART - Magnetic Materials & Nonlinear Dynamics of Smart Systems- WED-1 BRV

Chair: Pedro Pacheco

Time	Code	Title	Presenter
08:00 - 08:20	0911	Magnetic instability induced by a current-carrying wire of ferrofluids confined in a Hele-Shaw cell	Fabiano Carlos
08:20 - 08:40	2232	Design and Optimization of an Electromagnetic Energy Harvester for Wireless Sensors Applications	Airton José Schmitt Junior
08:40 - 09:00	0412	EXPERIMENTAL ANALYSIS OF A SHAPE MEMORY ALLOY OSCILLATOR WITH DISCONTINUOUS SUPPORT	Vanderson Dornelas
09:00 - 09:20	0655	A Prototype for Hybrid and Multidirectional Energy Harvesting using Pendulum Structures	Luã Guedes Costa
09:20 - 09:40			
09:40 - 10:00			

Session: SMART - Shape Memory Alloys - WED-3 BRV

Chair: Carlos Araújo

Time	Code	Title	Presenter
13:30 - 13:50	0415	Analysis of Shape Memory Alloys Composites Using Micromechanical Models	Alencar Bernardino
13:50 - 14:10	0612	A Parametric Investigation of Low Velocity Impact in SMA-Composite Plates	Lucas Vignoli
14:10 - 14:30	0759	Stress Concentration Analysis in Pseudoelastic Thin Sheets using the Finite Element Method	Bruno Felippe Silva
14:30 - 14:50	2408	PREISACH MODEL APPLIED TO THE THERMOMECHANICAL DESCRIPTION OF SHAPE MEMORY ALLOYS	Thiago Alvares

Session: SMART - Smart Systems - WED-4 BRV

Chair: Lucas Vignoli

Time	Code	Title	Presenter
14:50 - 15:10	0093	Nanocomposite Sensors of Indium Tin Oxide Nanowires in a PMMA Matrix for Structural Health Monitoring	Eduardo Preto
15:10 - 15:30	0193	A TUBULAR ORIGAMI STRUCTURE BASED ON A NOVEL WATERPEACE PATTERN	Guilherme Vieira Rodrigues
15:30 - 15:50	1140	Vibration Mitigation and Energy Harvesting with Bistable Resonators in Metamaterial Beams	Americo Barbosa da Cunha Junior
15:50 - 16:10	1251	SHM based on the Electromechanical Impedance Technique with Temperature Variations: Theoretical and Experimental Approach	Lorena Lopes Dias

NMM
Nano & Microfluidic & Microsystems

Thursday, Dec 7	
Time	**Sessions**
8:00 - 10:00	
10:00 - 10:30	**Coffee break**
10:30 - 12:10	**THU-2 BRV**
12:10 - 13:30	lunch
13:30 - 14:50	**THU-3 BRV**
14:50 - 16:10	**TUE-4 BRV**
16:10 - 17:00	**Poster presentations**

Nano & Microfluidic & Microsystems
ORAL PRESENTATIONS

Thursday 07 - Room BRAVA

Session: NANO - Micro and Nanofluidics – THU-2 BRV

Chair: Debora Carneiro Moreira

Time	Code	Title	Presenter
10:30 - 10:50	1563	Relative permeability curves measurement and visualization of pore-scale multiphase flow in fracture porous media	Vivian Sousa
10:50 - 11:10	1591	Encapsulation and controlled release of HCl in PDMS capsules	Ademir Medeiros
11:10 - 11:30	2132	Study of Enhanced Oil Recovery in Dual-Porosity Micromodels	Victor Bastos Braga Coelho
11:30 - 11:50			
11:50 - 12:10			

Session: NANO - Heat and Mass Transfer in Micro and Nano scales - THU-3 BRV

Chair: Debora Carneiro Moreira

Time	Code	Title	Presenter
13:30 - 13:50	2419	EXPERIMENTAL STUDY OF A HORIZONTAL LIQUID FILM HEAT EXCHANGER CONFIGURATION	José Roberto Simões Moreira
13:50 - 14:10	0619	EFFECT OF POROUS MICROSTRUCTURED ON POOL BOILING OF DI-WATER	Arthur Vilaronga
14:10 - 14:30	1816	Estimation of boundary heat flux in Micro-Channels Via Bayesian Inference By The Transitional Markov Chain Monte Carlo Algorithm	Lucas Asth
14:30 - 14:50	1945	MULTI-OBJECTIVE SHAPE OPTIMIZATION OF A PASSIVE MICROMIXER USING GENETIC ALGORITHM AND MULTI-OBJECTIVE DECISION-MAKING ALGORITHMS	Eduardo Henrique Taube Cunegatto

Session: NANO - Heat and Mass Transfer in Micro and Nano scales - THU-4 BRV

Chair: Leandro Alcoforado Sphaier

Time	Code	Title	Presenter
14:50 - 15:10	2037	COGENERATION IN A HIGH CONCENTRATION PHOTOVOLTAIC (HCPV) SYSTEM USING MICROCHANNEL HEAT EXCHANGERS FOR HEAT RECOVERY	Rafael San Martin Moreira
15:10 - 15:30	2064	Digital Image Correlation applied to interface tracking during flow boiling in microchannels	Debora Carneiro Moreira
15:30 - 15:50	2432	High-Speed and Infrared Flow Boiling Visualization in Microchannels with modified surfaces	Ana Moita
15:50 - 16:10	0253	Evaluation of flow boiling pressure drop at high mass velocities in microchannels using R123	Thalles Coimbra Borba Roldão

UQSM
Uncertainty Quantification and Stochastic Modeling

Monday, Dec 4	
Time	**Sessions**
9:10 -10:30	
10:30 - 10:50	**Coffee break**
10:50 - 12:10	
12:10 - 13:30	lunch
13:30 - 14:50	**MON-3 BRV**
14:50 - 16:10	**MON-4 BRV**
16:10 - 17:00	**Poster presentations**

Monday 04 - Room BRAVA

Session: UQSM - Probabilistic Modelling and Analysis, Simulation, and Soft Computing - MON-3 BRV

Chair: Marcelo A. Trindade

Time	Code	Title	Presenter
13:30 - 13:50	0342	Uncertainty in rotordynamics: A SOBOL's sensitivity analysis approach	Guilherme Lacerda
13:50 - 14:10	1451	RELIABILITY ESTIMATION OF CRACK PROPAGATION IN A ROTATING MACHINE SHAFT USING BAYESIAN DEEP LEARNING	Helio Fiori de Castro
14:10 - 14:30	1512	Vulnerability of lightweight steel structures subject to stochastic seismic loads	Crystian Daniel Paz
14:30 - 14:50			

Session: UQSM - Risk Analysis and Risk Management & Uncertainty Identification, Quantification, and Reduction- MON-4 BRV

Chair: Marcelo A. Trindade

Time	Code	Title	Presenter
14:50 - 15:10	0044	Epistemic uncertainties and their role in optimal design of engineering systems	Andre Beck
15:10 - 15:30	0855	Robustness analyses of modern oil-well drilling control techniques under uncertain bit-rock nonlinear interaction	Marcelo A. Trindade
15:30 - 15:50	1315	MODEL VALIDATION WITH CLASSICAL AND BAYESIAN HYPOTHESIS TESTING UNDER EPISTEMIC UNCERTAINTY.	João Henrique Camargo
15:50 - 16:10			

HVAC
Heating, Ventilation, Air-Conditioning and Refrigeration

Wednesday Dec 6	
Time	**Sessions**
9:10 -10:30	**WED-1 RIB**
10:30 - 10:50	**Coffee break**
10:50 - 12:10	**WED-2 RIB**
12:10 - 13:30	lunch
13:30 - 14:50	**WED-3 RIB**
14:50 - 16:10	**WED-4 RIB**
16:10 - 17:00	**Poster presentations**

Heating, Ventilation, Air-Conditioning and Refrigeration

ORAL PRESENTATIONS

WEDNESDAY 06 - Room RIBEIRÃO

Session: HEAT - Air-conditioning - WED-1 RIB

Chair: Prof. Guilherme Borges Ribeiro

Time	Code	Title	Presenter
08:00 - 08:20			
08:20 - 08:40	1077	Numerical modeling of a direct refrigerant two-phase cooling system for the thermal management of electric vehicle battery	Ernane Silva
08:40 - 09:00	1280	Influence of Condensation and Evaporation Modeling in the Simulation of Split Air Conditioning Systems	Gabriel Lisbôa Verissimo
09:00 - 09:20	1460	Experimental performance evaluation of an automotive air conditioning system	Diogo Lôndero Da Silva
09:20 - 09:40	2264	LOW-COST DEVICE FOR CO2-BASED AIR RECUPERATOR CONTROL TO REDUCE ENERGY CONSUMPTION WITHOUT CHANGING MINIMUM HEALTH PARAMETERS.	Arthur Cleydson

Session: HEAT - Refrigeration - WED-2 RIB

Chair: Prof. Enio Pedone Bandarra Filho

Time	Code	Title	Presenter
10:30 - 10:50			
10:50 - 11:10	0360	Transient Modeling for the Energy Consumption Prediction in a Portable Refrigerator	Luis Guilherme Fonseca Franco
11:10 - 11:30	0880	CO2 TRANCRITICAL REFRIGERATION SYSTEMS USING EJECTOR: A-STATE-OF-THE-ART REVIEW.	Frank Wiliam Adolfo Blanco Ojeda
11:30 - 11:50	1342	PERFORMANCE ANALYSIS OF THERMOELECTRIC COOLERS IN SERIES AND PARALLEL CONFIGURATIONS	Bernardo Vieira
11:50 - 12:10	1359	Performance prediction of a novel compact magnetocaloric wine cooler	Natália Maleski de Sá

Session: HEAT -Refrigeration - WED-3 RIB

Chair: Prof. Diogo Lôndero da Silva

Time	Code	Title	Presenter
13:30 - 13:50	1603	Modelling the dynamic operation of a magnetic refrigerator via recurrent neural networks	Guilherme Fidelis Peixer
13:50 - 14:10	1613	Optimization of a Magnetocaloric Air Conditioner Prototype	Rogerio Sucaria
14:10 - 14:30	1673	Improving Thermal Insulation of Compressor Cooling Capacity Measurement Vessel through Heat Leakage Factor Reduction	Raul Gilmar de Carvalho
14:30 - 14:50	2010	Numerical and experimental assessment of a hybrid active magnetic regenerator manufactured with Gd and La-Fe-Si alloys	Paulo Vitor de faria

Session: HEAT - Ventilation & Heating - WED-4 RIB

Chair: Prof. José Roberto Simões Moreira

Time	Code	Title	Presenter
14:50 - 15:10	0238	Numerical analysis of a solar chimney for building ventilation	Vinicius Branzani Leite
15:10 - 15:30	1718	PERFORMANCE ANALYSIS FOR A CROSS-FLOW FAN IN A HOUSEHOLD EVAPORATIVE COOLER	Matheus Garros
15:30 - 15:50	1302	Strategies to Operate a Thermal Storage Device Integrated into an Air-Source Heat Pump for Residential Space and Water Heating	Conrado Ermel
15:50 - 16:10			

EDU
Education

Thursday, Dec 7	
Time	**Sessions**
08:00 -10:00	THU-1 BRV
10:30 - 10:50	Coffee break
10:50 - 12:10	
12:10 - 13:30	lunch
13:30 - 14:50	
14:50 - 16:10	
16:10 - 17:00	Poster presentations

Thursday 07 - Room BRAVA

Session: EDU - Teaching and Learning in Future Engineering Education – THU-1 BRV

Chair: André Luiz Tenório Rezende

Time	Code	Title	Presenter
08:00 - 08:20	1694	Harpias - Stimulating women to enter and stay in engineering in Brazilian Amazon	Marina Costa
08:20 - 08:40	1555	Low-Cost Electrolyzer for Education in Renewable Energy	Lucas Rezende
08:40 - 09:00	2367	Critical view of the main stakeholders on the education of engineers provided by the Department of Mechanical Engineering at UFSC	Sergio Gargioni
09:00 - 09:20	2363	Adapting and implementing CDIO and Competency-Based Learning approaches to mechanical engineering education	André Luiz Tenório Rezende
09:20 - 09:40	0034	Experimental analysis and numerical-analitical discussion about the Young´s modulus on cantilever beam under statical elastic stress	Bruno Fernandes de Holanda
09:40 - 10:00	0831	Analysis of needs and opportunities for creating an interdisciplinary laboratory to support in Automation and Systems Engineering courses	Edson Baal

Poster presentation Sessions

POSTER PRESENTATION – MONDAY - 117

FRAME	CODE	TITLE	PRESENTER	AREA
1	0211	Numerical Thermomechanical Analysis of a Composite Sandwich Beam	Sebastião Simoes Cunha Jr	Solid Mechanics
2	0340	MAPPING OF URBAN SOLID WASTE, RECYCLABLE AND ORGANIC MATERIALS: CASE STUDY OF SÃO JOSÉ DOS PINHAIS/PARANÁ	Eliana Leal Ferreira Hellvig	Energy and Thermal Systems
3	1385	Production of alumina and zirconia composite filaments for 3D printing of scaffolds by Fused Filament Fabrication process	Jadna Catafesta	Bioengineering
4	0068	**DYNAMIC ANALYSES (MODAL AND FORCE VIBRATION) IN A RAILWAY VEHICLE MODEL WITH 25 DEGREES OF FREEDOM**	**Fernando** Beghetto	Dynamics, Control, Vibrations and Acoustics
5				
6	1950	Application of computational thermodynamics tool in the simulation of pyrometallurgical operations of lead-acid battery recycling	Leonardo Henrique Gomes	Materials and Manufacturing Engineering
7	0736	WEAR RESISTANCE EVALUATION OF THE COATING DIN 8555: MF 10-GF-60-GRZ ON THE HARDOX® 450 STEEL APPLIED IN THE RECOVERY OF MINING TRUCK BODY	Thais Stefany Santiago Brandão	Materials and Manufacturing Engineering
8	1631	The Effects of Controlled Graphene Addition on Stereolithography-produced Materials	Matheus Klement	Materials and Manufacturing Engineering
9	2341	Performance analysis and optimization of an additive-manufactured propylene-fed electrothermal thruster for small satellites	Diego Jhovanny Mariños Rosado	Aerospace Engineering
10	2240	DEVELOPMENT OF AN EXPERIMENTAL CORRECTION MODEL FOR HORIZONTAL BUOYANCY IN THE TESTING SECTION OF THE CLOSED-CIRCUIT WIND TUNNEL AT UFMG	Marina Fernandes	Aerospace Engineering
11	0204	A methodology of airfoil and wing optimization using genetic algorithms	Gustavo Fernandes	Aerospace Engineering
12	0602	Influence of the Rear Wing on Sliding in Formula 1 Vehicles	Leonel R Cancino	Aerospace Engineering
13	0247	Flow dynamics inside a plenum chamber applied for active flow control on high-lift airfoils	Rogério Rodrigues da Silva Filho	Aerospace Engineering
14	0248	Pressure distribution over a high-lift airfoil under the influence of an active flow control system	Rogério Rodrigues da Silva Filho	Aerospace Engineering
15	1885	Design Performance Optimization of Scaled Rotary Blades for Additive Manufacturing	Giulia Derneka Maccarone	Aerospace Engineering
16	1641	Design and parameters impact evaluation on the performance of an eVTOL aircraft	Gabriel Gomes de Souza	Aerospace Engineering

17	1078	IMPACT RESPONSE OF AN Al-Al HONEYCOMB SANDWICH PANEL FOR SATELLITE APPLICATIONS	Rodrigo Evangelista Aguiar de Souza	Aerospace Engineering
18	0191	PRELIMINARY STUDY OF A SPACE MISSION FOR OBSERVING PLASMA BUBBLES IN THE IONOSPHERE USING GNSS-RO	Vinicius Fernandes	Aerospace Engineering
19	0907	Flexible Aircraft Dynamics Using a Multibody Approach	Dimas Silvério da Silva Junior	Aerospace Engineering
20	2259	STUDY OF APPROXIMATION MANEUVERS WITH CLOSED-LOOP CONTROL FOR A SPACECRAFT OVER ASTEROIDS	Luan Henrique Glasser	Aerospace Engineering
21	2302	Flight Campaign Analysis of a Flexible Wing UAV for Studying Flexible Aircraft Dynamics	Vítor Fernandes	Aerospace Engineering
22	1982	The Effects of Controlled Iron Oxide, Aluminum Particles, and Crimson Powder Addition on Solid Propellants	Matheus Klement	Aerospace Engineering
23	2433	Numerical simulations of the helicon plasma thruster experiment under different magnetic configurations	Renan Almeida de Souza	Aerospace Engineering
24	0955	Analysis of the study performed with CFD software in veins submitted to valvulopathies	Mariana de Paula Souza	Bioengineering
25	0715	Comparison of Different Mathematical Models for the Evaluation of Hemolytic and Thrombogenic Potentials in Central Venous Access for Hemodialysis	Saulo Gonçalves	Bioengineering
26	2127	A Systematic Literatures Review on the use of fluid-structure interaction simulation for systems of blood flow through arteries with stents	Kristian Telöken	Bioengineering
27	2237	Numerical analysis of infrared thermography using hypothermia treatment for early screening of deep and superficial breast cancer	Mateus Felipe Benicio Moraes	Bioengineering
28	0359	A comparison study between high-fidelity and mid-fidelity models of coronary blood flow simulation	Amaury Santos	Bioengineering
29	1229	Development of a device for analyzing the functionality of N95 respirators regarding the efficiency of the filtering fiber	Claysson Vimieiro	Bioengineering
30	0027	Study of the tribological behaviour of a stainless-steel used in biomedical applications conducted with laser under different frequencies	Ronaldo Cozza	Bioengineering
31	0614	Development of a High-Speed Camera-Based Software for Characterization of Vibrational Motion in Cardiac Valves	Saulo Gonçalves	Bioengineering
32	0372	Influence of Thickness on Flutter in Prosthetic Biological Heart Valves	Saulo Gonçalves	Bioengineering
33	0790	DESIGN AND KINEMATIC ANALYSIS OF A FLAPPING WING MECHANISM FOR OPTIMIZED BIO-INSPIRED UAV	Maurício Menegatti Andrade	Bioengineering

34	1575	AUTOMATING THE PROCESS OF GENERATING MICROMOLDS IN COMPUTER-AIDED DESIGN (CAD) FOR USE IN 3D CELL CULTURE	Lívia Helena Martineli Teixeira	**Bioengineering**
35	1012	FLOW ANALYSIS IN A FLEXIBLE ARTERIOVENOUS FISTULA MODEL	Sabrina Machado Santos	**Bioengineering**
36	1069	Validation of treadmills shock absorption systems finite element models	EDSON CAPELLO SOUSA	**Bioengineering**
37	0375	influence of tissue stiffness on leaflet oscillation dynamics during a cardiac cycle.	Saulo Gonçalves	**Bioengineering**
38	2263	Development of a Test Bench for Frame Running (PETRA): Load Conditions Analysis and Characterization	Frederico Sousa Santos	**Bioengineering**
39	0682	ANALYSIS OF THE PRESSURE FIELD IN ARTERIOVENOUS FISTULA	Lucas Penha	**Bioengineering**
40	1084	Numerical vibration analysis of the human middle ear implanted with a vibration sensor and a flat flexible cable for electrical connection	Vinicius Paegle	**Bioengineering**
41	0111	DESIGN AND CONSTRUCTION OF A CUSTOM IMPLANT OF THE TEMPOROMANDIBULAR JOINT PRODUCED BY ADDITIVE MANUFACTURING IN TITANIUM ALLOY FROM COMPUTED TOMOGRAPHY	Rafael Ferreira Gregolin	**Bioengineering**
42	0137	THREE-DIMENSIONAL IMPRESSION OF MODELS OF THE HUMAN MANDIBLE AND MANDIBULAR IMPLANTS	Felipe Estevão da Silva	**Bioengineering**
43	1506	CONSTRUCTION AND EXECUTION OF A MECHANICAL FEASIBILITY STUDY IN FEM IN AN OPEN SOURCE PROSTHESIS	Rodrigo Romero	**Bioengineering**
44	1905	Evaluation of the microhardness of different 3D printing resins for denture base	Ana Paula MACEDO	**Bioengineering**
45	0228	ASTM F67 TITANIUM ANODIZING TO IMPROVE OSSEOINTEGRATION FOR DENTAL IMPLANTS	Wellington Elioenae do Nascimento	**Bioengineering**
46	2255	Manufacture of bone fracture stabilizing plates in biocomposite by resin infusion and by Hand Lay Up: a comparison	João Pedro Costa Eliziário	**Bioengineering**
47	1502	Nuclear Magnetic Resonance Image Reconstruction Using Reconfigurable Simulated System	Amauri da Costa Júnior	**Bioengineering**
48	0754	AUTOMATING VIRTUAL ORAL AND MAXILLOFACIAL SURGICAL PLANNING: DEVELOPMENT OF AN INTERFACE WITH PYTHON IN OPEN-SOURCE SOFTWARE	Dayanna Axly Santiago Villantoy	**Bioengineering**
49	2309	DESIGN, MANUFACTURE AND TESTS OF AN EXPERIMENTAL PULSATILE FLOW BENCH	Pedro Eduardo Oliveira de Andrade	**Bioengineering**
50	2070	Comparative study of energy efficiency in low-displacement engines fueled with methane-based gases and ethanol liquid as fuel	Marcos Paulo Garcia	**Combustion**
51	0904	ISOCONVERSIONAL MODELING FOR DETERMINING PYROLYSIS KINETIC AND	Mayara Gabi Moreira	**Combustion**

		THERMODYNAMIC PARAMETERS OF BIOMASS RESIDUES		
52	0890	Sensitivity analysis of a numerical model to predict polarization curves of a solid oxide fuel cell and comparison with experimental results	Guilherme Pickler	**Combustion**
53	1579	ANALYZING THE OXY-COMBUSTION PROCESS WITH DIFFERENT TYPES OF BRAZILIAN COAL IN THE NATIONAL THERMOELECTRIC POWER PLANT USING COMPUTATIONAL FLUID DYNAMICS.	RUBEN ALEXIS MIRANDA CARRILLO	**Combustion**
54	2329	NUMERICAL MODELING AND THERMAL ANALYSIS OF SLOW PYROLYSIS OF BIOMASS BY THERMOGRAVIMETRY	Jorge Emilio Rhenals Hoyos	**Combustion**
55	0469	HETEROGENEOUS REACTING SYSTEM EVALUATION BY CFD MODEL OF SEMI INDUSTRIAL SCALE GASIFIER IN FLUIDIZED-BED	Solidônio Carvalho	**Combustion**
56	1980	Evaluation of dolomite as a catalyst in the IN-SITU catalytic pyrolysis of sugarcane bagasse	Ana Helena de Campos Pereira	**Combustion**
57	0159	Comparison of temperature profiles and molar composition in the gasification of petroleum sludge.	Hiago David Zogbi Silva Oliveira	**Combustion**
58	1407	PYROLYSIS OF SUGARCANE BAGASSE CHEMICALLY TREATED WITH CITRIC ACID	Kayky da Silva Obnesorg	**Combustion**
59	0048	Assessment of the Impacts of Vehicular Emissions on Air Quality	Ronaldo Cozza	**Combustion**
60	0779	Experimental study in an optically accessible spark ignition engine using methane ignition with a lateral spark plug under stoichiometric and lean combustion	Enrico Rapetti Malheiro de Oliveira	**Combustion**
61	1913	ANALYSIS OF DUAL FUEL OPERATION WITH CONSTANT LOAD IN A COMPRESSION IGNITION ENGINE	Fábio Dias	**Combustion**
62	1511	PERFORMANCE ANALYSIS OF A 2.8 HP SPARK IGNITION ENGINE USING DIFFERENT TYPES OF GASOLINE	RUBEN ALEXIS MIRANDA CARRILLO	**Combustion**
63	0596	The available detailed kinetics models for ethanol – An extensively numerical assessment on ignition delay times, laminar flame speed and speciation.	JESSICA REBELO	**Combustion**
64	1151	0D/1D ANALYSIS OF THE PERFORMANCE AND EMISSIONS OF A NATURAL GAS ENGINE OPERATING ON ETHANOL	Miguel Barrientos	**Combustion**
65	1164	Numerical simulation of a locomotive engine using detailed chemical kinetics with n-heptane as a diesel surrogate	Miguel Barrientos	**Combustion**
66	1023	Development of a 1D model for simulation of a stationary single-cylinder diesel engine	Guilherme GONÇALVES	**Combustion**
67	0625	Influence of heating a port fuel injection system on hydrous ethanol in an optically accessible spark ignition engine	Frederico Weissinger	**Combustion**

68	1124	Ethanol-Water Mixtures as a Promising Fuel Alternative for Reducing Harmful Emissions in Spark Ignition Engines	Heron Ibraim	Combustion
69	2204	COMPARATIVE PERFORMANCE ANALYSIS OF COMPRESSION IGNITION ENGINE USING DIESEL AND BIOMASS PYROLYSIS OIL MIXTURES	Arthur Vilhena Lima	Combustion
70	0029	EXPERIMENTAL STUDY OF THE DIFFUSION FLAME LENGTH IN DIFFERENT CROSS-SECTIONS BURNERS IN MIXTURES OF NG-H2 DILUTED WITH CO2	Diego Jhovanny Mariños Rosado	Combustion
71	1598	Experimental characterization of automotive ethanol commercially available in Brazil.	Fabio Bongoski	Combustion
72	1430	IGNITION DELAY TIME OF GELLED GREEN FUEL WITH DIFFERENT FUMED SILICA CONTENT WITH HTP	Luiz Henrique Schaffazick	Combustion
73	2203	CHARACTERIZATION OF RESIDUAL POWDERS FROM URBAN ARBORATION FOR FEASIBILITY ANALYSIS FOR SOLID FUEL PRODUCTION	Francielle Cristine Gonçalves	Combustion
74	0059	Influence of binders on the kinetic parameters of thermal degradation of densified biomass	daniel otero martinez	Combustion
75	1622	STUDY OF THE COMBUSTION OF BIOETHANOL WITH EXCESS OF WATER USING A POROUS BURNER WITH COUPLED EVAPORATOR	Mauro A. Moreira Gonçalves	Combustion
76	2437	A SYSTEMATIC APPROACH TO REVIEWING CONTROL STRATEGIES IN LOWER LIMB EXOSKELETONS: METHODOLOGY AND INSIGHTS	Nasiru Adamu Marafa	Dynamics, Control, Vibrations and Acoustics
77	0582	MODAL MAPPING AND MAIN TRANSFER FUNCTION ANALYSIS OF A SAE BAJA VEHICLE	Antonio Almeida Silva	Dynamics, Control, Vibrations and Acoustics
78	1763	TECHNIQUE FOR THE SIMULTANEOUS ESTIMATION OF THERMAL PROPERTIES OF A COMPOSITE MATERIAL	Mariana de Melo Antunes	Dynamics, Control, Vibrations and Acoustics
79	1522	Control Techniques Applied to an Electromagnetic Levitation System by Attraction	Renan Imamura Marques	Dynamics, Control, Vibrations and Acoustics
80	2053	Nonlinear simulation of transmission gears coupling considering the impact pair effect	Nícolas Gass	Dynamics, Control, Vibrations and Acoustics
81				
82	1130	Evaluation of sound quality in faults of single-phase induction motors generated in a manufacturing process	Gabriel Brandão Santos	Dynamics, Control, Vibrations and Acoustics
83	0139	CORRELATION BETWEEN MECHANICAL VIBRATION AND WORKPIECE SURFACE QUALITY IN THE GRINDING PROCESS	RAPHAEL SILVA LINS	Dynamics, Control, Vibrations and Acoustics

84	0791	Comparing Analytical and Numerical Solutions for Fluid-Structure Problems with Free Surface Conditions: A Study on Tuned Liquid Dampers and Tuned Liquid Column Dampers	Pedro Viégas	**Dynamics, Control, Vibrations and Acoustics**
85	2317	Comparison of the sound absorption coefficient for three natural fiber samples with and without air gap using the impedance tube.	Ana Carolina Mendonça Mansur	**Dynamics, Control, Vibrations and Acoustics**
86	0025	An Assessment of Occupational Noise Exposure in Concrete Mixer Truck Drivers	Maria dos Reis Santos Borges	**Dynamics, Control, Vibrations and Acoustics**
87	0024	Comparison of experimental transmission loss of expansion chambers models with extended ducts and microperforated panel	Maria dos Reis Santos Borges	**Dynamics, Control, Vibrations and Acoustics**
88	2187	Study of the sound absorption of two composites made with polyurethane and natural fiber layers at low frequency using an impedance tube.	Ana Carolina Mendonça Mansur	**Dynamics, Control, Vibrations and Acoustics**
89	1590	Analysis of fuzzy compensators applied in the intelligent control of electro-hydraulic systems	Maria Carolina Albuquerque de Souza Santos	**Dynamics, Control, Vibrations and Acoustics**
90	1144	Surrogate active vibration control of a rotating shaft supported by magnetic bearings	Maria Carolina Albuquerque de Souza Santos	**Dynamics, Control, Vibrations and Acoustics**
91	1188	DYNAMIC BEHAVIOR ANALYSIS OF A FRAME WITH ROTATIONAL FRICTION DAMPER BY NUMERICAL AND EXPERIMENTAL METHOD	Antonio Almeida Silva	**Dynamics, Control, Vibrations and Acoustics**
92	1292	Design of passive dynamic absorbers to attenuate pathological tremor of human upper limb	Gabriel Guimarães de Souza Braga de Albuquerque	**Dynamics, Control, Vibrations and Acoustics**
93	2360	Use of metamaterials to reduce vibration of a wind tower subjected to an arbitrary stochastic wind	Vinícius Gabriel Peixoto Borges	**Dynamics, Control, Vibrations and Acoustics**
94	0948	INTELLIGENT SYSTEM FOR IDENTIFICATION OF PARALLEL MISALIGNMENTS IN GEARS OF THE WORM TYPE CROWN	MARCELO CAVALCANTI RODRIGUES	**Dynamics, Control, Vibrations and Acoustics**
95	0774	MAGNETORHEOLOGICAL DAMPERS IN LANDING GEARS: DYNAMIC ANALYSIS FOCUSED ON SHOCK ABSORPTION AND VIBRATION COMFORT	Felipe Lima de Abreu	**Dynamics, Control, Vibrations and Acoustics**
96	0307	Modeling, simulation and dynamic analysis of roller bearing with surface damage	Aline de Almeida Soares	**Dynamics, Control, Vibrations and Acoustics**
97	2305	Design of a Vibration Machine with Base Displacement Control for Stockbridge Damper Vibration Tests	MARLON MARCHI	**Dynamics, Control, Vibrations and Acoustics**
98	2299	CONVOLUTIONAL NEURAL NETWORKS FOR PATTERN-BASED FAULT DIAGNOSIS IN LOW-ROTATION EQUIPMENT	João Lucas Lobato Soares	**Dynamics, Control, Vibrations and Acoustics**

99	2304	IMPROVED HEALTH INDICATOR FOR LOW-SPEED BEARING FAULT DIAGNOSIS	Thiago Barroso Costa	**Dynamics, Control, Vibrations and Acoustics**
100	1190	Hydrodynamic cylindrical journal bearing for experimental validation of numerical models	Ely Queiroz Gomes	**Dynamics, Control, Vibrations and Acoustics**
101	0837	Comparative Analysis of the Rotordynamic Coefficients of a Plain Seal	Kaíque César Macedo Chagas	**Dynamics, Control, Vibrations and Acoustics**
102	2261	DECISION TREE FOR FEATURE SELECTION TO DIAGNOSIS OF BELT CONVEYOR IDLER	João Lucas Lobato Soares	**Dynamics, Control, Vibrations and Acoustics**
103	2267	COMPARISON OF MACHINE LEARNING TECHNIQUES FOR FAULT DIAGNOSIS IN BELT CONVEYOR IDLERS	Lis Silva de Moura	**Dynamics, Control, Vibrations and Acoustics**
104	0567	Analysis of the torsional vibration in rotodynamics	Geice Paula Villibor	**Dynamics, Control, Vibrations and Acoustics**
105	1516	THE APPLICATION OF MAGNETO-RHEOLOGICAL ELASTOMER IN A BASE INSOLATION SYSTEM FOR SEISMIC MITIGATION OF HIGHWAY BRIDGES	Fernanda Almeida	**Dynamics, Control, Vibrations and Acoustics**
106	2246	ANALYSIS OF A SELF-SUPPORTING HIGH-VOLTAGE POWER TOWER UNDER SEISMIC CONDITIONS WITH THREE-DIMENSIONAL EXCITATIONS	Joao Lucas Salvador de Araujo	**Dynamics, Control, Vibrations and Acoustics**
107	0657	Vibration Attenuation Analysis in a Structural System Applying Pendulum Dynamic Absorber (DVA) with SMA Superelastic Wire and Rod	Yuri Moraes	**Dynamics, Control, Vibrations and Acoustics**
108	0086	Design of a Viscoelastic Pendulum Absorber for Enhancing Fatigue Life in Dynamically Excited Structures	Leonardo de Castro Ferreira dos Santos	**Dynamics, Control, Vibrations and Acoustics**
109	1853	ANALYSIS OF APPROACHES AND TECHNIQUES APPLIED TO FAULT MONITORING IN STATIONARY MACHINES: A SYSTEMATIC REVIEW.	Allan Ícaro Ferreira Sousa	**Dynamics, Control, Vibrations and Acoustics**
110	1541	A FRAMEWORK OF CANTILEVER BEAM FOR DAMAGE DETECTION USING ARTIFICIAL NEURAL NETWORKS	Amanda Aryda Silva Rodrigues de Sousa	**Dynamics, Control, Vibrations and Acoustics**
111	0305	A Stochastic Modeling of Aeroviscoelastic Systems Subjected to Uncertainties for Subsonic Stability Analysis.	bruno cunha	**Dynamics, Control, Vibrations and Acoustics**
112	1990	APC Military Vehicle - Lateral Dynamics Case Study	Tobias Rosa	**Dynamics, Control, Vibrations and Acoustics**
113	0072	Parametric optimization of an off-road car suspension system aiming for a compromise between comfort and safety	Wander Carlos Bortolon	**Dynamics, Control, Vibrations and Acoustics**

114	1490	Study Of The Elastic Behavior Of The Secondary Suspension Spring Set in The Y32 Bogie Utilized in Vale Passenger Car	Victor Hugo Garcia de Campos	**Dynamics, Control, Vibrations and Acoustics**
115	1662	Modeling and validation of the longitudinal dynamics of a 2WD vehicle with mechanically driven CVT	Rodrigo Silva	**Dynamics, Control, Vibrations and Acoustics**
116	1146	ANALYSIS OF THE SUSPENSION ENERGY HARVERSTING POTENTIAL BY MEANS A 9 DOF NON-LINEAR TRUCK MODEL	Augusto Schmidt Lenz	**Dynamics, Control, Vibrations and Acoustics**
117	0237	Implementation of a vehicle dynamics data acquisition system on a scale prototype to detect dangerous driving patterns	André Costa	**Dynamics, Control, Vibrations and Acoustics**
118	2434	DEVELOPMENT OF A TRACTION CONTROL STRATEGY AND DYNAMIC MODELING OF A 4WD ELECTRIC TRACTOR	Wesllen Lins de Araujo	**Dynamics, Control, Vibrations and Acoustics**
119	0070	AN ANALYSIS OF VIBRATION AND WORKPIECE SURFACE QUALITY IN THE MILLING PROCESS	RAPHAEL SILVA LINS	**Dynamics, Control, Vibrations and Acoustics**

POSTER PRESENTATION – TUESDAY - 105

FRAME	CODE	TITLE	PRESENTER	AREA
1	1506	CONSTRUCTION AND EXECUTION OF A MECHANICAL FEASIBILITY STUDY IN FEM IN AN OPEN SOURCE PROSTHESIS	Rodrigo Romero	Bioengineering
2	0154	Implementation of the Taguchi method in the torrefaction of rice husk biomass	Maristela Ribeiro de Oliveira	Combustion
3	0249	Experimental analysis of an absorption refrigeration cycle run by thermal energy released in an internal combustion engine operating with ethanol	Cristiana Maia	Heating, Ventilation, Air-Conditioning and Refrigeration
4	0267	Hands-on Activity with an Unconventional Harmonic Oscillator	Vinícius Lamas von Sohsten	Education Symposium
5	1737	Educational robotics and movement maker applied on study of natural phenomena.	Erick Bernabe Zanelato	Education Symposium
6	0856	Development of a pneumatic bench for testing truss bridges	Isaac Varela Brito Guimarães de Souza	Education Symposium
7	0322	Didactic resources for remote practical activities in automotive maintenance	Lucas Silva Yoshida	Education Symposium
8	0483	RISK ANALYSIS IN BELT CONVEYOR PROJECTS	Camila Stephanie Ferreira	Uncertainty Quantification and Stochastic Modeling
9	0468	COMBINED ANALYTICAL AND NUMERICAL STUDY OF LAMINAR MAGNETOHYDRODYNAMICS IN A BACKWARD-FACING STEP CHANNEL	Gustavo Assad	Fluid Mechanics and Rheology
10	0730	INFLUENCE OF WORKING FLUID ON MICRO-PIN FIN HEAT SINKS UNDER SINGLE-PHASE FLOW CONDITIONS	Ariany Moreira	Nano and Microfluidic and Micro-Systems
11	0936	Experimental investigation and numerical simulation of heat transfer and pressure drop of MWCNT/thermal oil nanofluid flowing inside a horizontal tube	Daniel Florez	Nano and Microfluidic and Micro-Systems
12	2148	Demagnetization Fault Detection Method In Brushless Dc Motors Based On Fractal Dimensions	Alisson Alves dos Santos	Non-linear Phenomena
13	0623	EXPERIMENTAL AND SIMULATION ANALYSIS OF VERTICAL SURFACE GRINDING PROCESS IN PREDICTION OF FORCES	RAPHAEL SILVA LINS	Non-linear Phenomena
14	1152	A Bioinspired Solar Tracker Actuated by Shape Memory Alloy	João Gabriel Andrade da Rocha	Smart Materials and Structures
15	0302	Fault detection in a thick structure by using the ISHM technique	Fernanda Beatriz Aires de Freitas	Smart Materials and Structures

16	0460	INFLUENCE OF HEAT TREATMENT ON THE PHASE TRANSFORMATION TEMPERATURES OF AN EQUIATOMIC NITI WIRE	Pedro Paulo Lima	**Smart Materials and Structures**
17	1289	Review of Ni-Mn-Ga Heusler alloy: Properties and Applications of Actuators with Magnetic Shape Memory	Kaline Ventura	**Smart Materials and Structures**
18	0607	Experimental analysis of a smart soft beam actuated by SMA thin ribbon actuators	Carlos Jose de Araujo	**Smart Materials and Structures**
19	1620	Development of Mechanical and Structural Design of a Transmission Tower Applied Energy for Structural Health Monitoring	Rodrigo Borges Santos	**Smart Materials and Structures**
20	1091	Machine Learning and Electromechanical Impedance Applied in the Structural Health Monitoring.	Daniel Ferreira Gonçalves	**Smart Materials and Structures**
21	0565	Development of a hybrid energy generation system to serve isolated areas with a focus on system optimization	Tarcísio Klein	**Energy and Thermal Systems**
22	2031	Evaluation of the Potential and Economic Viability for the Production of Renewable Hydrogen by Solar, Wind and Biomass Energy: The State of Paraná	Leonardo Castro de Melo	**Energy and Thermal Systems**
23	0383	Assessing the Thermoeconomic Viability of Microalgae-Based Biofertilizers for Sustainable Agriculture: Economic and Environmental Benefits.	Gabriela Conor Figueiredo	**Energy and Thermal Systems**
24	0792	Investigation of energy efficiency of an SOFC integrated with ethanol reformer using lumped models	Igor Silva Flôres Siqueira	**Energy and Thermal Systems**
25	1099	Estimation of the Redistribution Behavior in the Biflux Anomalous Diffusion Problem	Douglas Corrêa	**Energy and Thermal Systems**
26	0419	Experimental evaluation of the thermal behavior of hot water flow in a module-faucet system	Fernanda Perazzolo Disconzi	**Energy and Thermal Systems**
27	1505	ARTIFICIAL NEURAL NETWORKS FOR PREDICTION OF THERMOSYPHON PERFORMANCE	Thiago Antonini Alves	**Energy and Thermal Systems**
28	0462	Application of GITT for the characterization of the Thermal Boundary Layer using a non-invasive method with a capacitive sensor	Gustavo Assad & Dhiego Veloso999	**Energy and Thermal Systems**
29	1367	Transient analysis of a heating and humidification system for mechanical ventilator air for patients in intensive care	Francisco Kleber Regis Castro	**Energy and Thermal Systems**
30	0771	THREE-DIMENSIONAL NUMERICAL SIMULATION OF EQUIPMENT WITH A CIRCULATING FLUIDIZED BED AND AXIAL CYCLONE IN SEMI INDUSTRIAL SCALE	Guilherme Maciel	**Energy and Thermal Systems**
31	0720	EXPERIMENTAL STUDY ON VITRIFICATION OF CRYOPROTECTANTS USING THIN-FILM EVAPORATION OF NITROGEN	Álisson Renan Stochero da Silva	**Energy and Thermal Systems**
32	0728	Low cost Peltier modules in evaluation of prismatic lithium-ion cells thermal behavior	Luciano Amaury dos Santos	**Energy and Thermal Systems**

33	2013	Flow pattern and pressure drop during air-water flow in horizontal channels with forced vibration	Fabio Toshio Kanizawa	**Energy and Thermal Systems**
34	0524	Experimental data reduction using the statistical computing for analysis of the battery interconnection tubes circuit of an electric vehicle.	Guilherme Plácido	**Energy and Thermal Systems**
35	0760	A numerical study of heat and mass transfer of water droplets using different geometrical parameters	Iago Lessa de Oliveira	**Energy and Thermal Systems**
36	0739	Feasibility study of burning centrifuged sludge generated in a poultry slaughterhouse	Thiago Calixto Teixeira	**Energy and Thermal Systems**
37	1053	COMPARATIVE SURFACE ANALYSIS AND SOLUTIONING THERMOCOUPLE INTERNAL POSITION PROBLEM OF VERTICAL HEAT EXCHANGER TUBES USED IN THE FALLING FILM EVAPORATION PROCESS	Jessé Steinert Barbiaro	**Energy and Thermal Systems**
38	0075	ANALYSIS OF THE THERMAL EFFICIENCY OF EDUCATIONAL LEARNING ENVIRONMENTS THROUGH NATURAL CONVECTION	Diego Alves de Miranda	**Energy and Thermal Systems**
39	0423	The transition of Research Reactor fuels from Dispersions to Monolithic	daniel de souza gomes	**Energy and Thermal Systems**
40	0425	AN INVESTIGATION OF THE PERFORMANCE OF TRISO FUEL AND MOLTEN FLOURIDE SALTS	daniel de souza gomes	**Energy and Thermal Systems**
41	0437	Hybrid integral transforms for analysis of combined laminar forced convection and thermal radiation	Dhiego Veloso	**Energy and Thermal Systems**
42	0326	CONSTRUCTAL DESIGN OF AN ISOTHERMAL BODY AND A LID-DRIVEN CAVITY FILLED WITH A METALLIC NANOFLUID	Rafael da Silveira Borahel	**Energy and Thermal Systems**
43	1540	CONTACT THERMAL CONDUCTANCE ESTIMATION BY THE APPLICATION OF OPTIMIZATION ALGORITHMS	Cairo Ximenes	**Energy and Thermal Systems**
44	0323	Enhancement heat transfer in a flat plate solar collector with a corrugated tube under the thermosyphon effect	Ewerton Lopes	**Energy and Thermal Systems**
45	0706	ANALYSIS OF ELECTROOSMOTIC FLOW IN MICROCHANNELS THROUGH INTEGRAL TRANSFORMS	waneise souza	**Energy and Thermal Systems**
46	1414	Impact of the double longitudinal vortex generator on enhancement heat transfer for a wavy-fin compact heat exchanger with circular and elliptical tubes	Laís Bandini	**Energy and Thermal Systems**
47	2081	QUADTREE IMPLEMENTATION FOR H-ADAPTIVE MESH REFINEMENT: A CASE STUDY IN MULTI-DOMAIN PROBLEMS	Gabriel Nunes	**Energy and Thermal Systems**
48	1054	Numerical Analysis of Thermal Insulation Performance in Heating Pipe Systems Using the Finite Volume Method	Diogo Bandeira de Melo Castelo Branco	**Energy and Thermal Systems**
49	2333	A PRELIMINARY NUMERICAL STUDY OF A THERMAL MANAGEMENT SYSTEM FOR ELECTRIC VEHICLE BATTERIES EMPLOYING	Felipe Selmo	**Energy and Thermal Systems**

		MICROCHANNELS WITH TRIPLY PERIODIC MINIMAL SURFACES		
50	0501	Numerical optimization of the thermal insulation of an elbow pipe type connection of an electric bus cooling system using computational open source code	Danilo Albuquerque Ribeiro	**Energy and Thermal Systems**
51	0494	Analysis via CFD of the battery interconnection pipeline circuit to the electric bus thermal management system	André Okamoto	**Energy and Thermal Systems**
52	1277	Modeling a PV/T system using the thermal resistance method	Amabile Valani Pessoti	**Energy and Thermal Systems**
53	0692	Performance analysis of a thermal photovoltaic system using water cooling and thermal storage.	Gabriel Rabelo Thomaz	**Energy and Thermal Systems**
54	0369	EVALUATION OF CORROSIVE PROCESSES, OF 304 STEEL IN BIODIESEL ENVIRONMENT, BY ELECTROCHEMICAL NOISE TECHNIQUE	Juliana David	**Energy and Thermal Systems**
55	0871	Theoretical and experimental analysis of a hybrid solar-electric dryer	Gabriel M. B. Cruz	**Energy and Thermal Systems**
56	1274	EFFICIENC SOLAR PHOTOVOLTAIC MODULES SUBMERGED AND PLACED ON THE WATER SURFACE: evaluation using thermal models	Humberto Faria Rezende	**Energy and Thermal Systems**
57	0897	BIOENERGY VALORIZATION OF THE BLENDS (FOOD WASTE AND URBAN PRUNINGS) AS A POSSIBLE CANDIDATE FOR SOLID BIOFUELS PRODUCTION	Glauber Cruz	**Energy and Thermal Systems**
58	1401	Impact of economic changes after the year 2022 on the economic viability of photovoltaic microgeneration in homes in the city of Fortaleza, Brazil.	Juan Jose Garcia Pabon	**Energy and Thermal Systems**
59	2047	Construction of an indirect exposure solar dryer for fruit drying	Emerson Jeronimo	**Energy and Thermal Systems**
60	0135	Transient Thermal-Electrical Model for Simulating of a Photovoltaic Module	Fabiano Cordeiro Cavalcanti	**Energy and Thermal Systems**
61	1431	Thermodynamic cycle analysis and combined heat and electricity generation with solar energy.	João Victor Siqueira Tenório Silva	**Energy and Thermal Systems**
62	1969	Variability and sensitivity of two models used to estimate photovoltaic production	Nícolas M. F. T. S. Araújo	**Energy and Thermal Systems**
63	2166	Deployment of a Small-Scale Model for Evaluation of a Thermal Power Plant Engine Heating Solution Using Hybrid Thermal-Photovoltaic Collectors.	Luciano Barbosa	**Energy and Thermal Systems**
64	0950	Experimental study and energy performance analysis of a vapor compression refrigerator powered by photovoltaic solar energy for regions without electrification	Willian Moreira Duarte	**Energy and Thermal Systems**
65	1461	FAULT DETECTION IN WIND TURBINES WITH TEMPERATURES ANALYSIS AND STATISTICAL MODELS.	Arthur Cleydson	**Energy and Thermal Systems**
66	0520	Energy Recovery from Biogas in Landfills: Potential Analysis in a City in the Midwest of Minas Gerais.	Vinicius Fonseca da Silva	**Energy and Thermal Systems**

67	1557	Energetic and Economic Analysis of the Biohydrogen Production Using Biogas from Vinasse in the Sugar Cane Industry	Germán Darío Picón Lescano	**Energy and Thermal Systems**
68	1388	SIMULATION OF VOLTAGE STABILITY IN 14 BUS SYSTEM WITH THE INSERTION OF DISTRIBUTED PHOTOVOLTAIC GENERATION	wagner mazurkewicz da chagas	**Energy and Thermal Systems**
69	0271	Biomass gasification for simultaneous production of electricity and biofuels.	Nestor Proenza Perez	**Energy and Thermal Systems**
70	1371	ENERGY DENSIFICATION OF SUGARCANE BAGASSE BRIQUETTE THROUGH OXIDATIVE TORREFACTION IN MINERAL LAYER	Juan Pablo Arteaga Ramos	**Energy and Thermal Systems**
71	1827	CFD SIMULATIONS FOR THE THEORETICAL ANALYSIS OF A SOLAR STILL	Gustavo Rodrigues de Souza	**Energy and Thermal Systems**
72	2172	THERMOECONOMIC ANALYSIS OF CO2 ALLOCATION AND INFLUENCE OF THE APPLICATION OF SOLAR COLLECTORS IN A THERMAL MDF PRODUCTION PLANT IN THE NORTH OF ESPÍRITO SANTO.	Matheus Alves Lima	**Energy and Thermal Systems**
73	0367	Torrefaction of urban forest waste: a process modeling and simulation study using Aspen Plus software	Mayara Gabi Moreira	**Energy and Thermal Systems**
74	1248	Creation of a algorithm using the Blade Element Momentum (BEM) methodology for the aerodynamic analysis of horizontal axis wind turbines	Felipe Eduardo de Farias	**Energy and Thermal Systems**
75	0096	Selective surface coatings: A bibliometric analysis	Gustavo César Pamplona de Sousa	**Energy and Thermal Systems**
76	1634	HYDROGEN-RICH SYNGAS PRODUCTION: AN CHP INTEGRATED SYSTEM WITH STEAM GENERATOR HEAT EXCHANGER AND GAS TURBINE FOR HYDROGEN PRODUCTION	jackson costa da silva	**Energy and Thermal Systems**
77	2388	FUTURE ENERGY SOURCES OF MOBILE DRIVE SYSTEMS	Christian Heikel	**Energy and Thermal Systems**
78	2036	COMBINED MACHINE LEARNING AND DECOMPOSITION MODELS BY PREDICTING URBAN WATER CONSUMPTION IN CURITIBA	Wilton Brayner	**Energy and Thermal Systems**
79	1392	PRODUCTION OF BRIQUETTES FROM EUCALYPTUS SP. SAWDUST USING A LIGNOCELLULOSIC RESIDUE FROM 2G ETHANOL PRODUCTION AS A BINDER	Gabriel Alexandre Pio	**Energy and Thermal Systems**
80	0577	Multi-objective optimization with an economic-environmental focus of a hybrid renewable energy system in an isolated community in Brazil	Tarcísio Klein	**Energy and Thermal Systems**
81	0446	REGIONAL ANALYSIS OF RESOURCES FOR POSSIBLE HYBRID SYSTEMS IN ISOLATED REGIONS IN BRAZIL	Tarcísio Klein	**Energy and Thermal Systems**
82	0533	Calibration of a low-cost digital hygrometer for measuring moisture in sugarcane bagasse	Julia Maria Leal	**Energy and Thermal Systems**
83	0315	Public policy for rooftop PV generation	Manoel Antônio da Fonseca Costa Filho	**Energy and Thermal Systems**

84	1299	Energy Autonomy in Sustainable Communities using Hybrid Solar PV-Battery-Hydrogen: A Review	David Mickely Jaramillo Loayza	**Energy and Thermal Systems**
85	0162	KINECT STUDY OF SUGARCANE BAGASSE COMPOUNDS IN INERT AND OXIDANT ATMOSPHERE	Miriam Ricciulli de Oliveira	**Energy and Thermal Systems**
86	1171	Mathematical Model to Convert Small Combustion Engine Trucks for Electric Traction with Photovoltaic Panel on the Vehicle Roof	Manoel Antônio da Fonseca Costa Filho	**Energy and Thermal Systems**
87	0091	PARTICLE SIZE ANALYSIS BY BOX-BEHNKEN RESPONSE SURFACE EXPERIMENTAL PLANNING	Abigail Cardoso Paes de Barros	**Energy and Thermal Systems**
88	0839	OVERVIEW ON THE CALCIUM LOOPING PROCESS (CaL) AND REACTOR DESIGN	Robson Oliveira	**Energy and Thermal Systems**
89	1560	COMPARATIVE ANALYSIS OF GHG EMISSIONS IN THE LIFE CYCLES OF BATTERY ELECTRIC, HYBRID, AND CONVENTIONAL VEHICLES FUELED WITH ETHANOL/GASOLINE	Felipe Diniz	**Energy and Thermal Systems**
90	2234	EXPERIMENTAL DETERMINATION OF THE MINIMUM FLUIDIZATION VELOCITY OF THE AÇAÍ SEED TO BE USED IN FLUIDIZED BED FURNACES	Amanda Carvalho	**Energy and Thermal Systems**
91	1646	Energy recovery in mineral slurry pipelines	André Luiz Rodrigues Leite	**Energy and Thermal Systems**
92	1738	Syngas Production from Municipal Solid Waste for Dual-Fuel Engine Operation with Biodiesel: an Economic Analysis	Victor Arruda Ferraz de Campos	**Energy and Thermal Systems**
93	1177	A comparation between a solar collector and a parabolic solar concentrator to heart water in the semi-arid region	Rudson de Souza Lima	**Energy and Thermal Systems**
94	1312	Effects of Wavy Leading Edge on the NREL Phase VI Wind Turbine Annual Performance	Juan Flores Mezarina	**Energy and Thermal Systems**
95	2095	Mathematical Modeling and Simulation of Mixotrophic Tetradesmus obliquus Growth	Murilo Gasparin Rampi	**Energy and Thermal Systems**
96	1528	MICROALGAL BIOMASS PRODUCTION OF “SCENEDESMUS MIX” THROUGH HETEROTROPHIC CULTIVATION	Anne Oliveira	**Energy and Thermal Systems**
97	2076	Preliminary analysis on the effects of thermal aging and corrosion on optical and morphological properties of chromium-based absorber surfaces deposited by Magnetron Sputtering	Thaís Almeida	**Energy and Thermal Systems**
98	1166	Application of the Inmetro Normative Instruction for classifying the energy efficiency of a federal public building	Manoel Antônio da Fonseca Costa Filho	**Energy and Thermal Systems**
99	1351	ANALYSING THE EFFECT OF HEAT TRANSFER ON THE BIODIESEL PRODUCTION FROM SPENT COFFEE GROUNDS	Ingryd Krinski	**Energy and Thermal Systems**
100	1756	ANALYSIS OF THE PROPOSED IMPLEMENTATION OF A COMBINED GENERATION SYSTEM IN A SUGAR AND ALCOHOL PLANT	Luciano Moreira	**Energy and Thermal Systems**

101	1365	MODELING AND SIMULATION OF GREEN HYDROGEN GENERATION – A REVIEW	Roque Martins Duarte Junior	**Energy and Thermal Systems**
102	2229	CHARACTERIZATION OF THERMOPHYSICAL PROPERTIES OF PHASE CHANGE MATERIALS FOR THEIR IMPLEMENTATION IN SOLAR THERMAL ENERGY APPLICATIONS	Cristina Isabel Cogollo Torres	**Energy and Thermal Systems**
102	2215	Thermodynamic Analysis of a Polygeneration Plant Based on LNG-regasification for CO2 Capture and Air Liquid Storage	José Vicente Dangelo	**Energy and Thermal Systems**
103	1058	Experimental Study and Simulation Model for Determining the Response Time of Thermocouples with Different Insulation Thicknesses	Katrine Barbosa Oliveira Chaves	**Energy and Thermal Systems**
104	2371	Thermodynamic analysis of a modified nacelle on a cruise flight to increase fuel economy and performance of the Boeing 737-900 with extended range	Caio Lucas De Oliveira Santos	**Energy and Thermal Systems**
105	0744	ANALYSIS OF A SOLAR/BIOMASS HYBRID POWER PLANT IN PARAIBA CITIES, BRAZIL	Beatriz Ribeiro Petrucci Padilha	**Energy and Thermal Systems**
106	0745	EXPERIMENTAL STUDY AND MODELING OF A H2O/NH3/H2 SOLAR DIFFUSION-ABSORPTION REFRIGERATOR FOR VACCINE STORAGE IN REGIONS WITHOUT ELECTRIFICATION	Gustavo Sana Trindade	**Energy and Thermal Systems**
107	1352	ENERGY, EXERGETIC AND ECONOMIC ANALYZES OF A KALINA CYCLE DRIVEN BY SOLAR THERMAL ENERGY IN THE BOM JESUS DA LAPA-BA CITY	Géssica Amorim	**Energy and Thermal Systems**
108	2152	Evaluation of the presence of carbon monoxide impact on CO2-rich mixture density and phase behavior at CCS process conditions.	Natália Kauana Gesser Miotto	**Energy and Thermal Systems**
109	2141	Thermodynamic analysis of biogas fired chemical looping combustion with supercritical CO2 cycle for power generation with CO2 capture	Andres Enrique Requena Gonzalez	**Energy and Thermal Systems**
110	0316	DEVELOPING A MQL VALVE FOR Ti-6Al-4V ALLOY MILLING WITH DIFFERENT CUTTING OIL AND GRAPHITE MIXING RATIO	Ed Claudio Bordinassi	**Materials and Manufacturing Engineering**
111	0207	EFFECT OF CUTTING FLUID ON SURFACE FINISH OF 316L DURING MILLING FROM PIECES OBTAINED FROM ADDITIVE MANUFACTURING AND ROLLING PROCESS	Ed Claudio Bordinassi	**Materials and Manufacturing Engineering**
112	2111	Fractional distillation of crude microalgae oil to produce renewable hydrocarbons.	Diego Sousa	**Energy and Thermal Systems**
113	0492	APPLICATION OF VIBRATION AND SOUND SIGNALS FOR EVALUATING MACHINING PARAMETERS RELATED TO THE MILLING PROCESS OF AISI D6 STEEL	Roberto Giani Pattaro Junior	**Dynamics, Control, Vibrations and Acoustics**
114	1809	Comparative analysis of ABS test specimens produced through additive manufacturing and thermoplastic injection	Vanessa Alonso Rodrigues	**Materials and Manufacturing Engineering**
115	2176	**Design of RST digital controller and PLC implementation on a Water Level Bench**	**Marco Antonio dos Santos Caballero**	**Mechatronics and Automation**

116	0794	DEVELOPMENT OF CO2 SORBENTS DOPED WITH RICE HUSK ASH APPLIED TO CALCIUM LOOPING	**Murilo Silva**	**Materials and Manufacturing Engineering**
118	1606	MODELING EMISSIONS BY CHEMICAL KINETICS TO A GENSET WITH BLENDS OF DIESEL/BIODIESEL	**Carlos Henrique Matiolo**	**Combustion**
119	2170	MATHEMATICAL MODELING AND EXPERIMENTAL VALIDATION OF HEAT EXCHANGER OPERATING AS A BOILER USING VOLUME ELEMENT METHOD	**DIEGO DE LIMA SOUSA**	
120	0558	INFLUENCE OF TOOL WEAR ON THE ROUGHNESS OF SPROWN SHAFTS GENERATED BY THE HOBBING PROCESS	Carlos Eduardo Borsoi Rheinheimer Carlos	**Materials and Manufacturing Engineering**

POSTER PRESENTATION – WEDNESDAY - 118

FRAME	CODE	TITLE	PRESENTER	AREA
1	0275	BIBLIOMETRIC ANALYSIS OF BIOMETHANE	Mônica Valéria dos Santos Machado	Energy and Thermal Systems
2	0870	Manufacturing and Analysis of a Heat-Activated Staple Using Ti-Ni-Cu Shape Memory Alloy	Carlos Jose de Araujo	Bioengineering
3	1556	INNOVATION IN THE DEFENSE SECTOR: A SYSTEMIC PERSPECTIVE	Marcelo Basto	Engineering Design
4	0092	DEVELOPMENT OF ROTORS FOR RIBBON BLENDER MIXERS LOOKING FOR GREATER EFFICIENCY	Luís Souza	Engineering Design
5	0132	Challenges of interaction between Suppliers and OEMs in the New Product Development for companies in Brazil	Paulo Lourenção	Engineering Design
6	1432	Diagnosis and application of the DMAIC methodology for air conditioner maintenance management: A case study of IFBA - Jequié Campus.	Danton Romulo da Costa Pitombo	Engineering Design
7	2402	On the Shoulders of a Giant, a Brief Technical Review of a Fundamental Study for the modern construction of Steel Reduction Plants	Alexandre Augusto Andrade da Silva	Engineering Design
8	2093	OPTIMIZATION OF PARTICULATE SALT FLOW ON A SCREW CONVEYOR USING DEM	Francisco Samuel Chaves	Engineering Design
9	1935	COMPLIANCE ASSESSMENT, ACCORDING TO NORMA REGULAMENTADORA 12, OF THE MANUFACTURING PROCESS LABORATORY OF A HIGHER EDUCATION INSTITUTION (HEI) IN BAHIA	Danton Romulo da Costa Pitombo	Engineering Design
10	2046	DEVELOPMENT OF A MICROCONTROLLER FOR MANUFACTURE OF CERAMICS SCAFFOLDS BY FREEZE CASTING PROCESS	João Paulo Santiago de Assis Silva	Engineering Design
11	0430	3D SCANNING APPLICATION TO IDENTIFY ASSEMBLY EFFORTS INFLUENCE ON A BRAKE BOOSTER	Caleb Oliveira	Engineering Design
12	1914	Construction of a 1 to 5 Scale Vertical Intermittent Coffee Dryer Prototype	Katrine Barbosa Oliveira Chaves	Engineering Design
13	1916	Technological tests on ABS specimens	Matheus Lopes	Engineering Design
14	0710	DfA-based Practices Guide for Polymer Injection Mold Assembly Design	Micaela Sanches Galicio	Engineering Design
15	0232	NUMERICAL MODELING OF A PLASTIC PALLET UNDER STATIC LOADING FOR SUSTAINABLE DEVELOPMENT	Ed Claudio Bordinassi	Engineering Design

16	0325	Goal-oriented requirements engineering applied in the design of a gyrostabilized turret of armored vehicles	Murillo Batista dos Santos	**Engineering Design**
17	0908	DESIGN OF A TEST BENCH FOR ELECTRIC PROPULSION SYSTEMS OF UNMANNED AERIAL VEHICLES	Nelson Ferreira Gonçalves Junior	**Engineering Design**
18	0729	Development of a topological optimization methodology applied to metallic structures	luis gabriel de jesus beltrão	**Engineering Design**
19	0308	COMPARATIVE ANALYSIS OF THE STATIC CHARACTERISTICS OF SIMPLIFIED AND FINITE HYDRODYNAMIC JOURNAL BEARING MODELS	Aline de Almeida Soares	**Engineering Design**
20	0956	APPLICATION OF TURBINE PROTOTYPING FOR TEACHING HYDRAULIC WORKS	Matheus Lopes	**Engineering Design**
21	1271	FAULT DETECTION IN BEARINGS BASED ON CONVOLUTIONAL NEURAL NETWORKS USING LOW-COST MEMS ACCELEROMETERS	Lucas Almeida Willenshofer	**Engineering Design**
22	2361	MAPPING THE STRATEGIC TECHNOLOGICAL AREAS OF THE DESIGN FOR EXCELLENCE (DFX) IN THE AEROSPACE DOMAIN	Rogerio Copriva	**Engineering Design**
23	1133	SYSTEMATIC REVIEW OF LITERATURE ON TECHNICAL SYSTEMS FOR GENERATION OF HYDRODYNAMIC CAVITATION IN BEER PRODUCTION	Murilo Da Rosa Amorim	**Engineering Design**
24	1523	Method for Failure Modes Analysis and Reliability Enhancement of Grinding in Mineral Processing Plants	Tércio Lucca Brito Andrade	**Engineering Design**
25	2436	LAGRANGIAN COHERENT STRUCTURES IN NUMERICAL SIMULATIONS OF A FLUID MODEL OF TURBULENCE IN FUSION PLASMAS	Ana Luiza Piragibe Freire	**Fluid Mechanics and Rheology**
26	2435	Spectral Entropy of Turbulence in a Fluid Model of Fusion Plasmas During a Low-To-High Confinement Transition	Sarah Gomes da Silva Paes da Costa	**Fluid Mechanics and Rheology**
27	0140	Analysis and development of a multiphase flow model for choke valves	Matheus Henrique Pestana de Carvalho	**Fluid Mechanics and Rheology**
28	1862	Experimental analysis of friction torque loss in grease lubricated deep groove ball bearings	Marcos Hiroshi Takahama	**Fluid Mechanics and Rheology**
29	1930	Identification of the wingbeat frequency of mosquitoes using mathematical models.	Gerardo Pizo	**Dynamics, Control, Vibrations and Acoustics**
30	0074	APPLICATION OF NUMERICAL SIMULATION IN THE ABS INJECTION MOLDING ANALYSIS PROCESS FOR IDENTIFICATION OF GAS OUTLETS	Diego Alves de Miranda	**Fluid Mechanics and Rheology**
31	0090	Numerical Analysis of the Blade and Tower Aerodynamics of the NREL 5 MW Wind Tower Project	Vinícius Massoni Pires	**Fluid Mechanics and Rheology**
32	1668	AERODYNAMIC ANALYSIS OF A FSAE VEHICLE OF THE UFVOLTS MAJORADOS TEAM THROUGH CHANGES IN END PLATES DESIGN	Joseph Kalil Khoury Junior	**Fluid Mechanics and Rheology**

33	0987	Numerical Simulation of Water Hammer	José Gustavo Coelho	Fluid Mechanics and Rheology
34	1246	NUMERICAL SIMULATION OF JET BUCKLING PHENOMENON OF VISCOELASTIC FLUID	Reginaldo Merejolli	Fluid Mechanics and Rheology
35	0151	Investigation of the influence of ground roughness on airflow in the atmospheric boundary layer using OpenFOAM	Gilberto Augusto Amado Moreira	Fluid Mechanics and Rheology
36	0966	NUMERICAL ANALYSIS FOR THE DEVELOPMENT OF HIGH-LIFT LOW REYNOLDS NUMBER AIRFOILS USING INVERSE DESIGN GEOMETRIC MODIFICATIONS	João Victor Lopes Marchiori	Fluid Mechanics and Rheology
37	1001	Investigation on the Impact of Sand Control Screen Diameter on Scaling and Flow Behavior in Oil Production	Rodrigo Prando Pedroni	Fluid Mechanics and Rheology
38	0077	AERODYNAMIC ANALYSIS OF TRUCK ACCESSORIES USING COMPUTATIONAL FLUID DYNAMICS	Diego Alves de Miranda	Fluid Mechanics and Rheology
39	0734	Analysis of the cavitation effect on the performance of a plain journal bearing using Computational Fluid Dynamics	Fernanda Ferreira Rossi	Fluid Mechanics and Rheology
40	0666	A COMPARATIVE NUMERICAL ANALYSIS BETWEEN STANDARDS FOR VENTURIMETER DESIGN APPLIED TO THE OPTIMIZATION OF FORMULA SAE RESTRICTOR	Juan Carlos Assis da Silva	Fluid Mechanics and Rheology
41	1435	Evaluating Ultrasonic Flow Meter Parameters through Computational Simulation of Flows with Flow Conditioner	Joao Alves de Lima	Fluid Mechanics and Rheology
42	0493	Analysis of aerodynamic drag in a Squareback geometry by numerical simulation	Elisa Paola Mora Robles	Fluid Mechanics and Rheology
43	1436	Fluid-structural numerical evaluation of the efficiency of a flow atenuator device through variations in the modulus of elasticity	Gustavo Cordeiro Barreiros	Fluid Mechanics and Rheology
44	0066	Flows over immersed bodies using the Fourier pseudospectral method	Laura Albuquerque	Fluid Mechanics and Rheology
45	1796	Study of axial separators through the computational fluid dynamics technique	Michel de Oliveira dos Santos	Fluid Mechanics and Rheology
46	2327	Numerical Analysis of Hybrid Photovoltaic Thermal System using Computational Fluid Dynamics	Tamara Barbosa Pereira de Assis	Fluid Mechanics and Rheology
47	1228	RIVERBED EFFECT INFLUENCE IN A RIVER DEBRIS REMOVAL SOLUTION FLOATING BARRIER	Patrick Donegá Queiroz	Fluid Mechanics and Rheology
48	1233	INVESTIGATION OF SWIRLING FLOW EFFECT ON AN AXIAL COMPRESSOR PARAMETERS VIA CFD	Patrick Donegá Queiroz	Fluid Mechanics and Rheology
49	2027	Numerical study of slot coating flows with a viscous liquid-gas interface	Filipe Oliveira da Silva	Fluid Mechanics and Rheology
50	1476	Numerical simulation of flow and pollutant dispersion in an urban intersection using k-ϵ turbulence model	Tomaz Antônio Lisboa e Silva	Fluid Mechanics and Rheology

51	1758	INFLUENCE OF CARREAU-YASUDA MODEL PARAMETERS ON NAJAFI-GOLESTANIAN MICROSWIMMER SWIMMING IN GENERALIZED NEWTONIAN FLUID	Gustavo Alves Lima	**Fluid Mechanics and Rheology**
52	1111	Effect of helical geometry on flow/pressure fluctuation attenuator device for pulsed flows	Matheus Campos Vieira	**Fluid Mechanics and Rheology**
53	1006	NUMERICAL ANALYSIS OF THE EFFECTS OF CONVERGENT-DIVERGENT NOZZLE GEOMETRY ON THE CHARACTERISTICS OF SUPERSONIC JET IN BOF CONVERTERS	Renato Siqueira	**Fluid Mechanics and Rheology**
54	1255	EFFECTS OF THICKNESS CHANGES ON THE THICKNESS ATTENUATORS FLOWS ASSOCIATED IN SERIES IN PULSED FLOWS	Gustavo Cordeiro Barreiros	**Fluid Mechanics and Rheology**
55	1508	Design and performance analysis of a Francis type hydraulic turbine impeller employing CFD	Mateus Felipe Benicio Moraes	**Fluid Mechanics and Rheology**
56	2194	Development of a numerical methodology for investigating the phenomenon of vortex induced vibration in bladeless wind turbine	João Lucas Lobato Soares	**Fluid Mechanics and Rheology**
57	0644	Fluid-structure interaction with Finite Element - Immersed Boundary Apporach with Industrial Application	Freddy Portillo Morales	**Fluid Mechanics and Rheology**
58	0254	ESP Performance Analysis Operating with Stable Water-in-Oil Emulsions	Andrey Felipe Casas Pulido	**Fluid Mechanics and Rheology**
59	0659	Design and Sizing of a Micro-Irrigation System: Centrifugal Pump.	RUBEN ALEXIS MIRANDA CARRILLO	**Fluid Mechanics and Rheology**
60	2171	Numerical and experimental study of a pulsation damper: application of a hyperelastic model for uniaxial tension	Matheus Alves Lima	**Fluid Mechanics and Rheology**
61	0186	ESTIMATION OF THE DISSIPATION RATE IN A CENTRIFUGAL PUMP IMPELLER BY USING PIV	William Denner Pires Fonseca	**Fluid Mechanics and Rheology**
62	1640	Design and Calibration of a Pitot Static Probe for an Educational Subsonic Wind Tunnel	Gustavo Pereira Miglioli	**Fluid Mechanics and Rheology**
63	0727	Verification bench based on a centrifugal fan with variable speed for gas flow meters	Luciano Amaury dos Santos	**Fluid Mechanics and Rheology**
64	0934	Numerical analysis of the liquid film thickness for gas-liquid flows on the separated pattern: closing parameters influence	Victor Vaurek Dimbarre	**Fluid Mechanics and Rheology**
65	1217	Solução Numérica de Sistema Unidimensional Oleoduto-Riser em Catenária	Leonardo Alegretti Belaroza	**Fluid Mechanics and Rheology**
66	2198	Intra-REV Pore Heterogeneity Model for Flow of Viscoplastic Material in Porous Media	Allan Barbosa Geoffroy Motta	**Fluid Mechanics and Rheology**
67	2068	Development of Parameterized Mapping: a starting point for the coupling between the structural solver Giraffe and the fluid dynamics solver OpenFOAM	Rodolfo Curci Puraca	**Fluid Mechanics and Rheology**
68	2050	Experimental Study of Lost Circulation using non-Newtonian fluids in fractured porous media	Cássio Schneider	**Fluid Mechanics and Rheology**
69	1211	LOW-COST VISCOMETERS APPLIED TO WAXY OILS	Leonardo Braz da Silva	**Fluid Mechanics and Rheology**

70	2073	Rheology of oil-in-water silicone oil emulsions	Michel de Oliveira dos Santos	**Fluid Mechanics and Rheology**
71	2295	Optimization of cement paste formulation for rheometric experiments.	Eliana Marin	**Fluid Mechanics and Rheology**
72	0764	Rheological behavior of Nanoparticles in Newtonian fluids	GÉSSICA PALAORO	**Fluid Mechanics and Rheology**
73	1316	A SINGULAR CONSTITUTIVE RELATION FOR SATURATED/UNSATURATED FLOWS THROUGH POROUS MEDIA	Lucas Neves de Almeida	**Fluid Mechanics and Rheology**
74	0894	RELIABILITY COMPARISONS AND DIFFERENCES BETWEEN DARCY-WEISBACH, COLERBROKE-WHITE E MOODY-ROUSE EQUATIONS	Rodrigo Ferreira	**Fluid Mechanics and Rheology**
75	2017	A hybrid model of stress-life and strain-life fatigue used to predict high power electrical rotating machines fan fatigue damage.	Pedro Martins de Oliveira	**Fracture, Fatigue, and Structural Integrity**
76	1647	Comparative study of the tensile strength of internal threads versus the use of false threads (helicoil) in aluminum alloy	Claysson Vimieiro	**Fracture, Fatigue, and Structural Integrity**
77	2414	COMPARING CHARPY IMPACT TEST USING SPECIMENS OF DIFFERENT SIZES FOR AISI 4340 STEEL	Luciano José Arantes	**Fracture, Fatigue, and Structural Integrity**
78	1669	Collapse of subsea pipelines: Numerical study on the interaction of corrosion defects with different geometric properties	Savanna Cristina Medeiros D'Aguiar	**Fracture, Fatigue, and Structural Integrity**
79	2002	STRESS ANALYSIS VIA FINITE ELEMENTS IN STRAIGHT AND CURVED PIPELINES CONTAINING DENT DEFECTS	Maize Cibele de Lima Melo	**Fracture, Fatigue, and Structural Integrity**
80	0475	Numerical analysis of different boss geometries for a composite overwrapped pressure vessel	Estêvão Santos Laureano da Cunha	**Fracture, Fatigue, and Structural Integrity**
81	0645	Experimental study of fatigue crack propagation monitoring using Acoustic Emission	Beatriz Marangoni	**Fracture, Fatigue, and Structural Integrity**
82	0301	Structural health monitoring of a fixed structure based on the ultrasonic technique	Larissa Pereira	**Fracture, Fatigue, and Structural Integrity**
83	1609	Structural Monitoring of Power Transmission Tower by Internet of Things	José Mascarenhas Lima Neto	**Fracture, Fatigue, and Structural Integrity**
84	1825	On the use of different image filters for damage detection in concrete-like structures using aerial photographs from UAV	Bruno Santos	**Fracture, Fatigue, and Structural Integrity**
85	0051	Performance Verification of Cleanrooms in an INCA Pharmacy	Oseas Carlos da Silva	**Heating, Ventilation, Air-Conditioning and Refrigeration**
86	0428	Thermal load sizing and selection of an air conditioning system applied to Modules 1 and 2 of Annex 1 of the Federal University of Itajubá - Theodomiro Carneiro Santiago Campus - Itabira.	RUBEN ALEXIS MIRANDA CARRILLO	**Heating, Ventilation, Air-Conditioning and Refrigeration**
87	0422	Theoretical performance evaluation of the new zeotropic refrigerant R457B and its blends in a vapor compression refrigeration cycle	Leonardo Nascimento	**Heating, Ventilation, Air-Conditioning and Refrigeration**

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89	1377	TECHNICAL-ECONOMIC COMPARISON OF UNITARY AIR CONDITIONING AND VRF SYSTEMS FOR HIGH STANDARD RESIDENCES IN MANAUS CITY	Mateus Andrade	Heating, Ventilation, Air-Conditioning and Refrigeration
90	1234	Total Equivalent Warming Impact of alternative refrigerants for replacement of R-22	Willian Moreira Duarte	Heating, Ventilation, Air-Conditioning and Refrigeration
91	0489	ENERGY OPTIMIZATION TO REPLACE R134A IN A VAPOR COMPRESSION REFRIGERATION CYCLE	Katrine Barbosa Oliveira Chaves	Heating, Ventilation, Air-Conditioning and Refrigeration
92	1623	Design of a small-capacity refrigeration machine operating with R744 and capillary tube	Willian Moreira Duarte	Heating, Ventilation, Air-Conditioning and Refrigeration
93	1307	EVALUATION OF THE LITERATURE ON THE INCREASE IN THE PERFORMANCE OF STEAM COMPRESSION REFRIGERATION SYSTEMS THROUGH THE APPLICATION OF NANOPARTICLES	Luciano Moreira	Heating, Ventilation, Air-Conditioning and Refrigeration
94	0753	Numerical simulation of external sweating in a static refrigerator	Vitor Fiorito	Heating, Ventilation, Air-Conditioning and Refrigeration
95	0387	Analysis of the thermoelectric potential of a homemade Peltier refrigeration system under different electrical operating conditions.	Jessica Martha Nunes	Heating, Ventilation, Air-Conditioning and Refrigeration
96	1222	PREDICTING OF TEMPERATURES PROFILES ALONG AN EARTH-AIR HEAT EXCHANGER (EAHE) USING ARTIFICIAL NEURAL NETWORKS	Gerson Santos	Heating, Ventilation, Air-Conditioning and Refrigeration
97	0717	Analysis of the mechanical properties: Polyester composites versus polyester with aquatic macrophyte ashes	Fernanda Beatriz Aires de Freitas	Solid Mechanics
98	2238	MEASUREMENT METHODOLOGIES FOR INVESTIGATING THE THERMAL BEHAVIOR OF A FERROUS MATRIX COMPOSITE REINFORCED BY CARBIDE OR NIOBIUM NITRIDE	Isadora Hasselmann Machado	Solid Mechanics
99	1395	3D numerical simulation of carbon fiber composites with additive manufacturing structural core for industrial applications	Luiz Alberto	Solid Mechanics
100	1072	Preliminary constituent analysis for the manufacture of a composite with active potential	Rodrigo Nogueira de Codes	Solid Mechanics
101	0981	EXPERIMENTAL STUDY ON THE ANISOTROPIC BEHAVIOR OF OPEN-HOLE GLASS/POLYESTER AND CARBON/EPOXY COMPOSITE SPECIMENS USING THE DIC TECHNIQUE	Rodrigo Nogueira de Codes	Solid Mechanics
102	1296	Stress Concentration Factor Analysis in a Sandwich Composite with central hole subjected to bending	Raimundo Carlos Silverio Freire Júnior	Solid Mechanics

103	0526	ANALYSIS OF A NOVEL SPINDLE SHAFT USING COMPOSITE MATERIAL APPLIED FOR TANGENTIAL MILLING MACHINING	Everton Medeiros	**Solid Mechanics**
104	1638	Morphological properties evaluation of porous and anisotropic materials	Lívia Nogueira	**Solid Mechanics**
105	1544	The use of modern instruments in structural analysis : A review of DIC and FBG sensors.	Bruno Agostinho Hernandez	**Solid Mechanics**
106	0884	Strain analysis of specimens subject to tensile test using open-source Digital Image Correlation Systems	Guilherme Ramiro	**Solid Mechanics**
107	1399	Improving chassi kart structure considering fatigue, modal and static analyses through Finite Element Analysis	Giuliano Mesquita	**Solid Mechanics**
108	1752	ANALYSIS OF ENRICHMENT FUNCTIONS IN FEM FOR SIMULATING CRACKED SHEET METAL	Gustavo Alves Lima	**Solid Mechanics**
109	1389	Using an Inverse Method Based on Deep Learning to Obtain Shear Parameters to Optimize a Shear-Displacement Finite Element Solution	Luana Claudia Bertoncello	**Solid Mechanics**
110	1017	Simulation of Indentation Testing Using FEM as a Procedure for Failure Analysis in Film/Substrate Systems	Avelino Dias	**Solid Mechanics**
111	0189	Optimizing Isogrid Structures for Multiple Performance Criteria: An Experimental Study	Guilherme Ferreira Gomes	**Solid Mechanics**
112	0527	TOPOLOGICAL DERIVATIVE IN THE TOPOLOGY OPTIMIZATION OF ARCH-GRAVITY DAMS	Lucas Duarte	**Solid Mechanics**
113	2061	STRUCTURAL DESIGN OF AN UNDERGROUND HERMETIC AND PRESSURIZED SUBSTATION FOR TRANSFORMING ELECTRIC ENERGY	Luís Souza	**Solid Mechanics**
114	0157	DYNAMIC ANALYSIS OF RAILWAYS TRACKS USING THE SPECTRAL ELEMENT METHOD: A LATTICE-STRUCTURE-BASED APPROACH	Pedro Augusto Beck	**Solid Mechanics**
115	0196	Experimental investigation on energy absorption of auxetic tubes under quasi-static compression loads	Rafael Augusto Gomes	**Solid Mechanics**
116	0195	Exploring the Vibration Characteristics of Auxetic Tubular Structures: An experimental analysis	Sebastião Simoes Cunha Jr	**Solid Mechanics**
117	1550	ANALYSIS OF AEROELASTIC STABILITY OF VISCOELASTIC SANDWICH PANELS IN SUBSONIC REGIME USING THE NONPLANAR DOUBLET-LATTICE METHOD	Bruno Cunha	**Solid Mechanics**
118	2320	Aerostatic bearing application for rotating machines	Rodolfo Silva	**Solid Mechanics**
119	0345	Structural analysis of an ore belt conveyor's polymeric roller considering viscoelastic effects	Rafiq Said Dias Jabour	**Solid Mechanics**
120	1362	**Analisys of the rarefied flow in microchannels with various geometries.**	**Ruan Ramon Penha dos Passos Pereira**	**Nano and Microfluidic and Micro-Systems**

POSTER PRESENTATION – THURSDAY - 107

FRAME	CODE	TITLE	PRESENTER	AREA
1	2104	DATA-DRIVEN MODEL TO ESTIMATE STATE-OF-HEALTH (SOH) FROM LITHIUM-ION BATTERIES	Carlos Antônio Rufino Júnior	Dynamics, Control, Vibrations and Acoustics
2	0067	The study of the development of aircraft wakes near a plane through a Lagrangian approach	Marília Vidille	Fluid Mechanics and Rheology
3	0969	Energy harvesting for truck weigh-in-motion system	Rafael Baeta Neves	Energy and Thermal Systems
4	1121	Numerical Modeling of a Lithium-Ion Cell Using Axial Direct Cooling Strategies	Rodrigo Alonso Pires Júnior	Energy and Thermal Systems
5	0787	Influence of wire feed rate on the microstructure and hardness of austenit-ic stainless steel 316L-Si preforms obtained by WAAM.	Jefferson Segundo de Lima	Materials and Manufacturing Engineering
6	2140	ANALYSIS OF WELDING PARAMETERS USING ARTIFICIAL NEURAL NETWORKS AND GENETIC ALGORITHMS FOR WELD BEAD GEOMETRY PREDICTION IN GMAW	Caio Augusto Mascarenhas Dias Fiho	Materials and Manufacturing Engineering
7	2424	INFLUENCE OF PROCESSING PARAMETERS ON THE LASER MICROMACHINING AND TEXTURING OF 3Y-TZP COMPACTS DOPED WITH GRAPHITE	Bruno Alexandre Pacheco de Castro Henriques	Materials and Manufacturing Engineering
8	1218	DESIGN FOR ADDITIVE MANUFACTURING GUIDELINES FOR MATERIAL EXTRUSION: A REVIEW	Adele Cagnato Conte	Materials and Manufacturing Engineering
9	0138	A study on the applicability of GTAW as an energy source for DED and PBF processes in Additive Manufacturing	Alcindo Moreira	Materials and Manufacturing Engineering
10	1402	Comparative study of the mechanical properties of Ti-6Al-4V alloy manufactured by additive manufacturing using the electron beam melting (EBM) process and by conventional methods.	Lucas Carlos de Sousa	Materials and Manufacturing Engineering
11	1267	Fabrication of Nickel parts using hydrogel pastes	Luana Dalla Vecchia de Lima	Materials and Manufacturing Engineering
12	1600	Effect of laser powder bed fusion processing parameters on densification behavior and microhardness of Inconel 625/NbC composites	Marcio C. Fredel	Materials and Manufacturing Engineering
13	0505	Comparison of impact resistance of annealed 3d printed PLA according to different Izod ASTM test standards	Lucas Melo Queiroz Barbosa	Materials and Manufacturing Engineering
14	0503	INFLUENCE OF ANNEALING ON PLA MECHANICAL AND THERMAL RESISTANCE	Lucas Melo Queiroz Barbosa	Materials and Manufacturing Engineering

15	1813	Evaluation of 3D-printability of copper metal pastes.	Manuela Furlani da Silva Soares	**Materials and Manufacturing Engineering**
16	1156	Finite element analyses modeling for additive manufacturing tracking thermal and mechanical properties in lattice structures	Euclides Santanna	**Materials and Manufacturing Engineering**
17	1973	Development of zeolite ceramic paste for material extrusion additive manufacturing	Sergio Lucas Santos Rocha	**Materials and Manufacturing Engineering**
18	2384	THE USE OF LOW-POWER BLUE LASERS IN ADDITIVE MANUFACTURING OF SMALL STRUCTURES	Tiago Borsoi Klein	**Materials and Manufacturing Engineering**
19	0922	ROBOTIC ADDITIVE MANUFACTURING SYSTEM: DEVELOPMENT OF MATHEMATICAL MODELING TO PREPARE 3D PRINTING PROCESSES FOR ABS COPOLYMER	Eduardo Costa Pulquerio	**Materials and Manufacturing Engineering**
20	1314	Additive Manufacturing of Copper by 3D Extrusion	Camila Gonçalves	**Materials and Manufacturing Engineering**
21	1295	Manufacturing of copper-nickel parts by 3D extrusion pastes	Ana Cavalheiro	**Materials and Manufacturing Engineering**
22	0809	Evaluation of tensile strength anisotropy in preforms of austenitic stainless steel 316L-Si obtained by wire arc additive manufacturing	Igo Jose	**Materials and Manufacturing Engineering**
23	0100	TOWARDS THE FLOWABILITY AND SPREADABILITY OF CEMENTED CARBIDES AND CERMET POWDERS FOR ADDITIVE MANUFACTURING: EXPERIMENTAL AND NUMERICAL APPROACH – PART 1	Fabio Miranda	**Materials and Manufacturing Engineering**
24	1192	3D Stereolithography printing of graphene reinforced nanocomposites: chemical and thermal analysis	Rafael Perottoni	**Materials and Manufacturing Engineering**
25	1353	Robotic Additive Manufacturing System: Study of the influence of motion parameters on the mechanical properties of 3D-printed tensile specimens	Rafaela Barbosa	**Materials and Manufacturing Engineering**
26	1525	Additive manufacturing of copper-graphene composites by 3D-Extrusion	Milene Follmann	**Materials and Manufacturing Engineering**
27	0234	Multi-Objective Genetic Algorithm Optimization to Examine the Durability of Cutting Tools with NASA Milling Dataset	Danilo dos Santos Oliveira	**Materials and Manufacturing Engineering**
28	0258	Analysis of methods for calculating the internal radius of air-bending process and his influence on punch displacement	Pedro Kucarz	**Materials and Manufacturing Engineering**
29	2313	COMPARATIVE STUDY OF THE TECHNICAL AND ECONOMIC FEASIBILITY BETWEEN ABLATIVE MATERIALS AND SPECIAL ALLOYS APPLIED IN THE ROCKET ENGINE.	Willem Nascimento	**Materials and Manufacturing Engineering**
30	0143	ADVANCING ABRADABLE EVALUATION: A COMPREHENSIVE REVIEW AND	Kaue Bertuol	**Materials and Manufacturing Engineering**

		DEVELOPMENT OF AN INNOVATIVE COST-EFFECTIVE METHODOLOGY		
31	1983	EVALUATION OF FRICTION MATERIAL USED IN BRAKE PADS AND LININGS THROUGH DMA TESTS	Juliana Favero	**Materials and Manufacturing Engineering**
32	2131	Parameterization of laser cladding process with WC and H13 in considering dilution aspects	Paulo Dyer	**Materials and Manufacturing Engineering**
33	2231	Evaluation of "micro-cladding" parameters in face of thermal effects reduction for top-hat lasers	Joares Reis	**Materials and Manufacturing Engineering**
34	1002	Material selection for optimization of a radio-controlled aircraft spar using sandwich-type hybrid composites.	Jeissiany Regonini Schineider	**Materials and Manufacturing Engineering**
35	0361	Investigations on enhanced hardening of CuNi electrodeposited coatings obtained in the presence of micro-Al2O3 particles in a citrate-ammonia solution pH 9.2.	Paulo Cezar Tulio	**Materials and Manufacturing Engineering**
36	2156	MECHANICAL PROPERTIES OF POLYLACTIC ACID USED IN COMPONENTS MANUFACTURED IN 3D PRINTING	Geice Paula Villibor	**Materials and Manufacturing Engineering**
37	0160	SUPERELASTIC TUBULAR STRUCTURES OF CU-AL-MN SHAPE MEMORY ALLOY OBTAINED BY INVESTMENT CASTING: A PRELIMINARY STUDY USING 3D PRINTED ABS MODELS	Railson de Medeiros Nóbrega Alves	**Materials and Manufacturing Engineering**
38	0242	Thermomechanical characterization of a Cu-Al-Mn shape memory alloy processed by investment casting	Railson de Medeiros Nóbrega Alves	**Materials and Manufacturing Engineering**
39	1417	Evaluation of the stability of the welding process with pulsed tubular wire through current and voltage signals.	João Roberto Sartori Moreno	**Materials and Manufacturing Engineering**
40	2269	Production and characterization of zirconia-alumina ceramic composites, reinforced with rare earth oxides (Y2O3 and La2O3), for application as TBC in the exhaust nozzles of gas turbines	Yogendra Prasad Yadava	**Materials and Manufacturing Engineering**
41	1744	Effect of process parameters on the properties and microstructures of CrMnFeCoNi coatings produced by laser cladding	Athos Fernandes Araujo	**Materials and Manufacturing Engineering**
42	2184	PRODUCTION OF BIODIESEL FROM KITCHEN WASTE OIL FROM HETEROGENIC CATALYSIS WITH CUO/ZNO NANOSTRUCTURES OBTAINED BY COMBUSTION REACTION	Philip Alexandre Araújo Ventura dos Santos	**Materials and Manufacturing Engineering**
43	0480	Study of Acoustic Emissions in Electrical Discharge Machining with Copper and Graphite Electrodes	Samuel Ferreira	**Materials and Manufacturing Engineering**
44	0356	MICROSTRUCTURAL AND MECHANICAL CHARACTERIZATIONS OF THE BRONZE ALLOY CUSN8ZN4PB1 COMMONLY USED IN BEARINGS.	Carlos Damião de Souza	**Materials and Manufacturing Engineering**
45	2386	NON-DESTRUCTIVE TESTING (NDT) FOR INDUSTRIAL APPLICATIONS – SYSTEMATIC APPROACH TO IMPLEMENTATION,	Ulrike Siemer	**Materials and Manufacturing Engineering**

		OPPORTUNITIES AND LIMITATIONS OF NOVEL NDT METHODS, NEW TRENDS		
46	0794	DEVELOPMENT OF CO2 SORBENTS DOPED WITH RICE HUSK ASH APPLIED TO CALCIUM LOOPING	Murilo Silva	**Materials and Manufacturing Engineering**
47	1889	OBTAINING AND MECHANICAL CHARACTERIZATION OF FILMS BASED ON STARCH BLENDS, CHITOSAN AND SODIUM ALGINATE	Francielle Cristine Gonçalves	**Materials and Manufacturing Engineering**
48	1995	Influence of TiO2 nanoparticle addition on submerged arc welding processes on carbon steel	Maria Fernanda Coimbra Forcellini	**Materials and Manufacturing Engineering**
49	1487	INFLUENCE OF PRINTING PARAMETERS AND MEAN STRESS ON THE FATIGUE BEHAVIOR OF ABS SAMPLES OBTAINED BY FFF	Vinícius Hiroshi Souza Miwa	**Materials and Manufacturing Engineering**
50	1079	Adhesion of Magnetron Sputtering coatings on Acrylonitrile Butadiene Styrene: a systematic review	Thiago de Lima Gontarski	**Materials and Manufacturing Engineering**
51	2209	Evaluation of recovery and recrystallization induced by heat treatment in deformed railway steel microstructures.	Igor Ferreira Passinho Silva	**Materials and Manufacturing Engineering**
52	0128	Comparison of methods for assessing material properties from spherical indentation test on three types of steel	Luciano José Arantes	**Materials and Manufacturing Engineering**
53	2118	Study of the influence of processing parameters on the mechanical properties of Polyamide 66 and glass fiber composites obtained by the injection molding process	Maurício Baesso	**Materials and Manufacturing Engineering**
54	0882	STRUCTURAL CHARACTERISTICS AND PROPERTIES OF POLYMERIC COMPOUNDS REINFORCED WITH POLYPROPYLENE MICROFIBER AND GRAPHENE OXIDE (GO)	Thalyson Oliveira	**Materials and Manufacturing Engineering**
55	0224	MECHANICAL CHARACTERIZATION OF SUPERELASTIC STAPLES OBTAINED BY TIG SPOT WELDING OF Ni-Ti SMA WIRES	Carlos Jose de Araujo	**Materials and Manufacturing Engineering**
56	1236	A literature review on additive manufacturing of ceramic parts produced by paste extrusion	Gustavo Peres	**Materials and Manufacturing Engineering**
57	2274	EVALUATION OF THE APPLICATION OF BORON-BASED COATINGS ON AISI 1020 STEEL BY SMAW	Edilson Pollnow	**Materials and Manufacturing Engineering**
58	0716	Effects of the solid carburizing with babassu coconut (Orbignya phalerata) on the microstructure and mechanical properties on low carbon steels	Denilson Monteiro	**Materials and Manufacturing Engineering**
59	2273	Mechanical analysis of fiberglass-reinforced polyester composites artificially and naturally aged.	MARIA GUERRA	**Materials and Manufacturing Engineering**
60	2175	Microstructural characterization and evaluation of corrosion resistance in stainless steel applied in the pulp and paper industry	Matheus Alves Lima	**Materials and Manufacturing Engineering**

61	1418	Study of electrical signals in the process of coating welding with pulsed tubular wire aiming to determine the stability of the electric arc.	celso alves correa	**Materials and Manufacturing Engineering**
62	0158	The Influence of Deformation in the Sheet Thickness Direction to Obtain the Forming Speed in DP600 Steel	Márcio Madi	**Materials and Manufacturing Engineering**
63	0513	APPLICATION OF MICROWAVE HYBRID HEATING FOR PACK CHROMIZING OF THE AISI M2 TOOL STEEL	Vitor Silveira Rolin	**Materials and Manufacturing Engineering**
64	1798	Forces analysis of single point incremental sheet metal forming by variation process parameters	Davi Judá De Souza Fraga	**Materials and Manufacturing Engineering**
65	1180	Influence of mixing variation on the macro and microstructure of 316L-Si stainless steel deposits obtained by GMAW	Anderson Eduardo De Salles Oliveira	**Materials and Manufacturing Engineering**
66	1971	ANALYSIS OF THE INFLUENCE OF GTAW WELDING PARAMETERS ON THE MICRO HARDNESS OF DUPLEX STAINLESS STEEL UNS S31803	Pedro Eduardo Machado Zortéa	**Materials and Manufacturing Engineering**
67	0876	Monitoring the 475ºC Embrittlement by Barkhausen Noise Measurements in a Duplex Stainless Steel	Alisson Alves dos Santos	**Materials and Manufacturing Engineering**
68	2415	ASSESSMENT OF UNCERTAINTY ASSOCIATED WITH YIELD STRENGTH OBTAINED ACCORDING TO ASTM E8/E8M STANDARD	Luciano José Arantes	**Materials and Manufacturing Engineering**
69	2413	A METROLOGICAL CONTRIBUTION TO THE MEASUREMENT OF LATERAL EXPANSION IN CHARPY TESTS	Luciano José Arantes	**Materials and Manufacturing Engineering**
70	1689	On the temperature correction in measuring natural gas volumes for household consumers	Lidiane Mendonça Penna Francisco	**Materials and Manufacturing Engineering**
71	0149	Diamond grinding wheel wear analysis using sustainable lubrication-cooling technique in the grinding process	Anthony Talon	**Materials and Manufacturing Engineering**
72	0145	INVESTIGATION OF THE TOOL-CHIP INTERFACE TEMPERATURE IN CRYOGENIC TURNING OF HARDENED AISI D6 TOOL STEEL	Anderson Clayton Alves de Melo	**Materials and Manufacturing Engineering**
73	2122	Modeling and simulation of a cassette fan coil system for efficient cooling in indoor environments	Flávio Júnior Santiago Silva	**Heating, Ventilation, Air-Conditioning and Refrigeration**
74				
75	0418	Comparison of different lubrication-cooling methods' performance when grinding AISI 4340 steel seeking for greener manufacturing	André Bueno Tavares	**Materials and Manufacturing Engineering**
76				
77	0502	Impact resistance of quenched 1045 steel bars for quick stop equipment in turning operations	Lucas Melo Queiroz Barbosa	**Materials and Manufacturing Engineering**

78	0065	INVESTIGATION OF THE EFFECT OF HELIX ANGLE VARIATION ON INTERNAL THREADING	RAPHAEL SILVA LINS	**Materials and Manufacturing Engineering**
79	0929	INFLUENCE OF COMPRESSED COLD AIR COOLING IN MILLING PROCESS WITH BARREL END MILL ON THE HARDENED STEEL	Alexandre Venturi	**Materials and Manufacturing Engineering**
80	1710	Beyond Traditional Machining: An Eco-friendly Assessment of ABNT 1045 Steel Surface Integrity using Environmentally Sustainable Cutting Fluids	Matheus Buzo	**Materials and Manufacturing Engineering**
81	2157	Influence of Surface Finishing by Grinding and Polishing on the Residual Stresses in S13Cr Steel	Túlio Salek	**Materials and Manufacturing Engineering**
82	0225	Sustainable use of Aloe vera oil against corrosion in copper-containing refrigeration systems	Marcos Paulo Simões Barbosa	**Materials and Manufacturing Engineering**
83	0517	Tribological evaluation of naphthenic base oils using four ball tester	Denilson Monteiro	**Materials and Manufacturing Engineering**
84	1021	Coaxial Laser Cladding of Tribaloy T800™ Alloy	Daiana Aparecida Kruchelski da Silva	**Materials and Manufacturing Engineering**
85	2383	HVOF-SPRAYED COATING AGAINST WEAR OF SLURRY PUMP ROTORS AND TAILINGS FOR THE COAL MINING INDUSTRY	Vitor Gustavo Alves	**Materials and Manufacturing Engineering**
86	0123	“U” TYPE FOLDED STRUCTURAL PROFILE UNDER THE INFLUENCE OF DISTORTION DUE TO THE MAG WELDING PROCESS	Bruno Agostinho Hernandez	**Materials and Manufacturing Engineering**
87	1097	Evaluation of Dissimilar Welds with the Temper-bead Technique Using Electrodes ER 316L and ER NiCrMo-3 on Steel ASTM A182 F22	Adelino Maia Neto	**Materials and Manufacturing Engineering**
88	2055	MANUFACTURING OF LOOPED DIAMOND WIRE BY UPSET WELDING AND HEAT TREATMENT OF WELD JOINT BASED ON JOULE EFFECT	Miguel Barcelos	**Materials and Manufacturing Engineering**
89	1264	The use of a microcontroller for level control in a submerged cooling system applied to Wire Arc Additive Manufacturing	José Sávyo Soares Lira	**Mechatronics and Automation**
90	2075	DEVELOPMENT OF DEVICE FOR PRODUCING FILAMENT FROM PET BOTTLES USED IN ADDITIVE MANUFACTURING: ANALYSIS OF PARAMETERS AND COMPARISON WITH COMMERCIAL PRODUCTS	Jorge Henrique Souza Marques Alves	**Mechatronics and Automation**
91	0031	Artificial immune system applied in the detection of damage in an inverted pendulum under the effect of a controller.	Matheus Medeiros Donatoni	**Mechatronics and Automation**
92	0126	Deep reinforcement learning-based algorithm to replace the PID for controlling satellite axis pointing	Gabriel Goes Aragão Santana	**Mechatronics and Automation**
93	0298	Prototype of an assistive device for lower limb motor rehabilitation.	VICTOR RAUL HUAMAN CONDORI	**Mechatronics and Automation**

94	1007	A study of the application of automatic speech recognition in assistive robotics	Walter de Britto Vidal Filho	**Mechatronics and Automation**
95	1844	Development of real-time monitoring device for postural rehabilitation	Alison Rocha	**Mechatronics and Automation**
96	0076	ANALYSIS OF THE FEASIBILITY OF CONTROLLED AND PROGRAMMABLE ACCELERATION OF ELECTRIC VEHICLES	Diego Alves de Miranda	**Mechatronics and Automation**
97	0148	INFLUENCE OF SECONDARY PATH MODEL ON NOISE REDUCTION PERFORMANCE OF ACTIVE NOISE CONTROL SYSTEM IN DUCT	Bruno Gomes	**Mechatronics and Automation**
98	1808	INTEGRATION OF PROGRAMMABLE LOGIC CONTROLLER WITH DATABASE AND WEB APPLICATION IN THE WOOD PROCESSING INDUSTRY	Yves-Garnard irilan	**Mechatronics and Automation**
99	1126	MODELING AND EVALUATION OF THE REGENERATIVE POTENTIAL OF A QUARTER-CAR WITH HYDRAULIC DAMPER	João Gabriel Benedito Duarte	**Mechatronics and Automation**
100	1452	Experimental estimation of the moisture content of cotton bales through required hydraulic force	André Vecchione	**Mechatronics and Automation**
101	1904	The Review of Research on Wrist Rehabilitation Robots	Gabriella Faina Garcia	**Mechatronics and Automation**
102	1003	Comparative study of haptic interfaces with parallel and serial kinematic configuration	Walter de Britto Vidal Filho	**Mechatronics and Automation**
103	1466	Kinematic analysis of the 3D tripteron robot with parallel axes	Vinicius Xavier	**Mechatronics and Automation**
104	2407	Exploring Snake-Like Locomotion: Analysis of Serpenoid Curves and Anisotropic Friction in Snake Robots	Thiago de Deus Lima Rocha	**Mechatronics and Automation**
105	1343	DEPOSITION AND CHARACTERIZATION OF THERMOPLASTIC ELASTOMERS FOR SENSOR SUBSTRATE	Jhonatan Alves Machado	**Mechatronics and Automation**
106	1237	DEVELOPMENT OF A FORCED AIR-COOLING SYSTEM APPLIED TO ADDITIVE MANUFACTURING BY ARC DEPOSITION	Flavio Emanuel de Lima Silva	**Mechatronics and Automation**
107	1678	OPTIMAL PLANNING OF DIRECTIONAL DRILLING OPERATIONS: A MIXED-INTEGER PROGRAMMING FORMULATION	Moisés Dantas dos Santos	**Offshore and Petroleum Engineering**
108	2410	Analysis of Stress Overshoot Fitting in Flow Start-up Tests for Different Drilling Fluids	LUIS HUMBERTO QUITIAN ARDILA	**Offshore and Petroleum Engineering**
109	1062	Development of a inspection tool for flexible pipes integrity test: annular flooded detection	Carlos Alberto Nogueira Junior	**Offshore and Petroleum Engineering**
110	0364	EXPERIMENTAL INVESTIGATION OLEFIN-BASED INVERTER DRILLING FLUIDS ON HPHT CONDITIONS: APPARENT VISCOSITY PREDICTION IN DIFFERENT OIL/ WATER RATIOS	LUIS HUMBERTO QUITIAN ARDILA	**Offshore and Petroleum Engineering**

111	2034	PETRO-IPR: A Computational Tool for Inflow Performance Relationship Analysis	Roberto Araujo Júnior	**Offshore and Petroleum Engineering**
112	1098	ANALYSIS OF OPERATIONAL FAILURES IN OFFSHORE DIRECTIONAL WELLS	luis gabriel de jesus beltrão	**Offshore and Petroleum Engineering**
113	0170	STUDY OF COMMERCIAL COATING OF PIPES TO IMPROVE THE FLOW OF WATER-OIL EMULSIONS	Rafaela Silva	**Offshore and Petroleum Engineering**
114	0789	Estimation of pollution sources with Physics-Informed and Bayesian Neural Networks	Roberto Mamud Guedes da Silva	**Non-linear Phenomena**