MO-1A: LEGGED ROBOTICS 1

ROOM: 1
CHAIRS: Marcelo Becker

Time	Paper ID	Paper Title	Authors
08:30-08:45	47	Design and Control of an Exoskeleton with Flexible Links for Upper Limb Movement Rehabilitation	Maria Eduarda Pinheiro (UNESP); Adriano Siqueira (USP); Wilian dos Santos (UNESP)
08:45-09:00	82	Energy-Efficient Quadruped Locomotion Based on Deep Reinforcement Learning	Felipe Santos (Senai Cimatec); Anusio Correia (Senai Cimatec); Erick Nascimento (Senai Cimatec); Oberdan Pinheiro (Senai Cimatec); Alex Santos (Senai Cimatec)
09:00-09:15	83	Development of Control Systems for Valve Rotation Operations using Quadruped Robots	Gabriel Oliveira (Universidade de São Paulo)*; Adriano Siqueira (Universidade de São Paulo); Marcelo Becker (Universidade de São Pàulo)
09:15-09:30	86	Noise Parameter Tuning for an Invariant Extended Kalman Filter Implementation Using Genetic Algorithms	Jhon Gonzalez Riascos (Universidad Autonoma de Occidente)*; Sofia Castaño Vanegas (Universidad Autonoma de Occidente); Vivian Suzano Medeiros (Universidade de Sao Paulo); Marcelo Becker (Universidade de Sao Paulo); Javier Castillo Garcia (Universidad Autonoma de Occidente)

MO-2A: ARTIFICIAL INTELLIGENCE IN ROBOTICS 1

ROOM: 1
CHAIRS: George Thé

Time	Paper ID	Paper Title	Authors
13:00-13:15	25	Region similarity assessment from MLP neural network and probabilistic modeling of point cloud images	George Thé (Federal University of Ceará)*; José M. Soares (Federal University of Ceará); Polycarpo Souza Neto (Federal University of Ceará)
13:15-13:30	29	Nonlinear and RL-Based Controllers for Inverted Pendulum Systems	Gabriel Matz (Instituto Militar de Engenharia)*; Daniel Eccard (Instituto Militar de Engenharia); Hebert Azevedo (Instituto Militar de Engenharia)
13:30-13:45	39	Load and Selection Policies for Setplays in the RoboCup 3D Soccer Simulation League	Caroline Santos (Universidade do Estado da Bahia (UNEB))*; Ana Patrícia Mascarenhas (Universidade do Estado da Bahia (UNEB)); Josemar Souza (Universidade do Estado da Bahia (UNEB)); Marco Simões (Universidade do Estado da Bahia (UNEB))
13:45-14:00	-	-	-
14:00-14:15	45	Real Time Deep Learning Based Pothole Detection on Low Cost Embedded Devices for ADAS	William Martins (UNESP); Fernando Osorio (USP); Diego Bruno (UNESP)*
14:15-14:30	65	Investigating Diffusion Models for Offline Behavior Cloning in Autonomous Driving Scenarios	Bruno Machado (Universidade Federal de Santa Catarina)*; Eric Antonelo (Universidade Federal de Santa Catarina)
14:30-14:45	147	A Simplified Pipeline for Wakeword Creation and Deployment: Leveraging Zero-Shot Text-to-Speech and ROS2 for Robotic Systems	Alexandre Ferro Filho (UFG)*; Daniel da Silva (Universidade Federal de Goiás); José Rafael Teles (Universidade Federal de Goiás); Letícia Mendes (Universidade Federal de Goiás); Gabriel Ruotolo (Universidade Federal de Goiás); Marcelo Henrique Ferreira (Universidade Federal de Goiás); Telma Soares (Universidade Federal de Goiás)
14:45-15:00	-	-	-

MO-2B: EDUCATIONAL ROBOTICS 1

ROOM: 2
CHAIRS: Leonardo Rincon

Time	Paper ID	Paper Title	Authors
13:00-13:15	31	Study on the Application of Fine-tuning to Create an Assistant for Robotics Teams	João Victor de Oliveira Gomes Ribeiro (Inatel); Wanderson Eleutério Saldanha (Inatel)*; Alexandre Baratella Lugli (Inatel); Renzo Paranaíba Mesquita (Inatel)
13:15-13:30	50	Bringing ROS to the Classroom: A Modern Robotics Kit for Students	Thiago Martins (USP)*; Pedr Pimentel Fuoco (USP); Vinicius Selestrim (Robocore Robótica e Automação)
13:30-13:45	59	Development and Validation of a Digital Twin for a 5-Revolute Joint Robotic Manipulator	Luan Lima (Federal University of Ceará)*; José Ferreira (Federal University of Ceará); David Coelho (Federal University of Ceará); Reuber Regis (Federal University of Ceará); Wendley da Silva (Federal University of Ceará)
13:45-14:00	102	Low-Cost Optical Communication System for Short-Range Underwater Applications	BENICIO CRUZ (Instituto Tecnológico de Aeronautica)*; Stephanie Sousa (Instituto Federal de Sergipe); Phillipe Santos (Instituto Federal de Sergipe); Fábio Prudente (Instituto Federal de Sergipe)
14:00-14:15	55	Low Cost Study Platform for Rotary-Wing UAV: Design and Validation	Carlos Persuhn (Universidade Federal de Santa Catarina); David Dickmann (Universidade Federal de Santa Catarina); Ebrahim el Youssef (Universidade Federal de Santa Catarina); Leonardo Rincon (Universidade Federal de Santa Catarina)
14:15-14:30	66	Development of a Low-Cost Autonomous Micromouse Mobile Robot for Educational Purposes	Miriam da Imaculada Conceição Ribeiro Pereira Uchoa (University Federal of Ceara)*; Jorel Vasconcelos (University Federal of Ceara); Delean Estevão Lima (University Federal of Ceara); Gildemberg Weskley Duarte (University Federal of Ceara)
14:30-14:45	122	Adaptive Human-Machine Interaction for Autonomous Passenger Vehicles: Towards Personalization and Enhanced User Experience	Andre Luiz Florentino (Centro Universitario FEI); Plinio Thomaz Aquino Junior (Centro Universitario FEI)*
14:45-15:00	-	-	-

MO-3A: HUMAN ROBOT INTERACTION 1

ROOM: 1
CHAIRS: Raul Paradeda

Time	Paper ID	Paper Title	Authors
15:30-15:45	8	Validating Emotion Simulation in Roboldo: A Study on Human-Robot Interaction	Paradeda Raul (State University of Rio Grande do Norte)*; Daniel Torres (State University of Rio Grande do Norte); Carlos Sousa (State University of Rio Grande do Norte, Brazil)
15:45-16:00	9	Humor and Emotion in Social Robotics: Exploring User Interaction with an Emotionally Responsive Joke-Telling Robot	Paradeda Raul (State University of Rio Grande do Norte)*; Daniel Torres (State University of Rio Grande do Norte); Carlos Sousa (State University of Rio Grande do Norte)
16:00-16:15	18	Social Robots in Elderly Care: A Scoping Review of Caregiver Perspectives	Diana Churata (São Paulo University); Marcelo Fantinato (São Paulo University); Sarajane Peres (São Paulo University); Paradeda Raul (State University of Rio Grande do Norte)*
16:15-16:30	71	A Quantitative Metric for Reproducibility in Human Robot Interaction Experiments	Beatriz Teles Tavares (Universidade Federal de Sergipe)*; Eduardo Oliveira Freire (Universidade Federal de Sergipe); José G. N. Carvalho (Universidade Federal de Sergipe); Elyson A. N. Carvalho (Universidade Federal de Sergipe); Lucas Molina (Universidade Federal de Sergipe)
16:30-16:45	108	Voice Commands Authentication for Mobile Robots Navigation in Programmable Intelligent Spaces with Speaker Recognition	Mateus Menines (Universidade Federal do Espírito Santo)*; Antonio Oliveira (Universidade Federal do Espírito Santo); Arthur Salvador (Universidade Federal do Espírito Santo); Luiz Filho (Universidade Federal do Espírito Santo); Raquel Vassallo (Universidade Federal do Espírito Santo)
16:45-17:00	150	A Survey of Sensing and Interaction in Robotic Assembly	Leonardo Luna (USP)*; José Savazzi (EMBRAER); Glauco Caurin (USP)

MO-3B: MULTI ROBOTS

ROOM: 2
CHAIRS: Luciano Cunha de Araújo Pimenta, Ebrahim El'Youssef

Time	Paper ID	Paper Title	Authors
15:30-15:45	20	Consensus-Based Cooperative UAVs for Optimized Photovoltaic Plant Monitoring	Pablo Teodoro (Universidade Federal de Uberlândia); Daniel Ramos (Universidade Federal de Uberlândia)
15:45-16:00	103	Discrete Robust Formation Control for UAVs in the Presence of Communication Faults	Thamiris Lima Costa (Federal University of Santa Catarina)*; Ebrahim El'Youssef (Federal University of Santa Catarina); Edson De Pieri (Federal University of Santa Catarina)
16:00-16:15	106	A Systematic Literature Mapping of Cooperative and Collaborative Multi-UAV Motion Planning Approaches for UAVs	Elias J. R. Freitas (Federal Institute of Minas Gerais, IFMG)*; Miri Weiss Cohen (Braude College of Engineering); Frederico Gadelha Guimarães (Universidade Federal de Minas Gerais, UFMG); Luciano Cunha de Araújo Pimenta (Universidade Federal de Minas Gerais, UFMG)
16:15-16:30	113	Towards a Line Formation Algorithm to Reduce Congestion in Swarm Robotics	Luiz Felipe Pimentel (Centro Federal de Educação Tecnológica de Minas Gerais); Anderson Pires (Centro Federal de Educação Tecnológica de Minas Gerais)
16:30-16:45	118	Centralized Radial Segregation Algorithm for Swarms of Dubins-like Robots	David Brochero Giraldo (Universidade Federal de Minas Gerais)*; Luciano Pimenta (Universidade Federal de Minas Gerais)
16:45-17:00	17	Automated Irrigation Systems: Utilizing Smart Sensors to Optimize Water Usage in Agriculture	Anubhav Mayank (Chandigarh University)*; Anvesha Raman (Chandigarh University); Munish Kumar (Chandigarh University)

MO-4A: ARTIFICIAL INTELLIGENCE IN ROBOTICS 2

ROOM: 1
CHAIRS: Milena Pinto

Time	Paper ID	Paper Title	Authors
17:00-17:15	23	Deep Reinforcement Learning Using the Soft Actor-Critic Method for Goalkeeper Control in a Very Small Size Soccer Environment	Lucas Marchesan (UFSM)*; João Pedro Righi (UFSM); Thássio Silva (UFSM); Enzo Simão (UFSM); Diogo Rocha (UFSM); Natã Schmitt (UFSM); Anselmo Cukla (UFSM); Bruno Sampaio (UFSM); René Ferrari (UFSM); Felipe Gomes de Oliveira (Universidade Federal do Amazonas (UFAM)); Daniel Fernando Tello Gamarra (UFSM)
17:15-17:30	78	State Estimation of Autonomous Terrestrial Robot Using a Neural Network Model	Fernando Ugucioni Filho (USP)*; Marcelo Becker (USP); Vitor Akihiro Hisano Higuti (EarthSense)
17:30-17:45	107	Learning Long-Term Dependencies to Predict an Opponent's Behavior in Robot Soccer	Guilherme Pauli (University Center of FEI)*; Flavio Tonidandel (University Center of FEI)
17:45-18:00	4	Improving Robot Navigation with Fuzzy Logic for Rule Generation in the Dynamic Window Approach	Gabrielle Timotheo (UFJF); Milena Pinto (CEFET/RJ)*; Iago Biundini (UFJF); Tatiana Machado (UFF); Vinicius Vidal (UFJF); Leonardo Honório (UFJF)

MO-4B : EDUCATIONAL ROBOTICS 2

ROOM: 2
CHAIRS: Maria da Guia Torres

Time	Paper ID	Paper Title	Authors
17:00-17:15	33	Control System for Parking Maneuvers in a Prototype Autonomous Vehicle	Rodrigo Gebara Reis (Universidade de São Paulo); Victor Rocha da Silva (Universidade de São Paulo); Felipe G. M. D'Elia (Universidade de São Paulo); Larissa Driemeier (Universidade de São Paulo); Thiago Martins (Universidade de São Paulo)
17:15-17:30	105	A low-cost Delta robot for Educational Robotics	Pedro L. da Silva (Federal Institute of Minas Gerais, IFMG); Ryan H. X. Ferreira (Federal Institute of Minas Gerais, IFMG); Davi M. de S. Dias (Federal Institute of Minas Gerais, IFMG); Elberth O. Lopes (Federal Institute of Minas Gerais, IFMG); Vinícius C. R. de Oliveira (Federal Institute of Minas Gerais, IFMG); Carlos D. da S. Júnior (Federal Institute of Minas Gerais, IFMG); Elias J. R. Freitas (Federal Institute of Minas Gerais, IFMG)
17:30-17:45	68	Educational Robotics and Social Issues: A Pedagogical Proposal with Educational Robotics to Awareness of the #FaçaBonito Campaign	Larissa de Souza (UFRN); Juliette Araújo Maia (IFSERTÃOPE); Leonardo Teixeira (EAJ / UFRN); Luiz M. G. Gonçalves (DCA / UFRN); Luciane Garcia (CE / UFRN); Orivaldo Santana (ECT / UFRN)
17:45-18:00	143	Intellectual Collection in Repo-Educ: Dissemination of Scientific Production in Educational Robotics	Maria Torres (Universidade Federal do Rio Grande do Norte); Luiz Gonçalves (Universidade Federal do Rio Grande do Norte); Carla Curvelo (Universidade Federal do Rio Grande do Norte); Rafael Melo (Universidade Federal do Rio Grande do Norte); Aylane Pereira (Universidade Federal do Rio Grande do Norte); Merciana Moura (Universidade Federal do Rio Grande do Norte)

TU-1A : AERIAL ROBOTS 1

ROOM: 1
CHAIRS: Augusto Tavares

Time	Paper ID	Paper Title	Authors
08:30-08:45	7	Fast and Accurate Vision-based Flying Object Detection and Tracking for Pursuing Intruder UAVs	Ana Maria Nascimento (Universidade Federal da Paraiba); Wagner Garcia (Universidade Federal da Paraiba); Augusto Vinicius Sales (Universidade Federal da Paraiba); Sarah Madruga (Universidade Federal da Paraiba)*; Alisson Brito (Universidade Federal da Paraiba); Tiago Nascimento (Universidade Federal da Paraiba)
08:45-09:00	10	A Multi-Rotor UAV Modified Geometric Attitude Controller	Ana Maria Nascimento (Universidade Federal da Paraiba); Sarah Madruga (Universidade Federal da Paraiba); Alisson Brito (Universidade Federal da Paraiba); Tiago Nascimento (Universidade Federal da Paraiba)*
09:00-09:15	30	Deep Neural Network-Based LQR Adaptive Control for Commercial Quadrotors Using ROS	Gabriel Bertho (Universidade Federal de São Carlos)*; Roberto Santos Inoue (Universidade Federal de São Carlos); Mariusz Wzorek (Linköping University); Piotr Rudol (Linköping University)
09:15-09:30	44	An Artificial Neural Network LiPo battery model based on UAV flight data	Gabriel Alencar (Universidade Federal da Paraíba); Augusto Tavares (Universidade Federal da Paraíba)*; Sarah Madruga (Universidade Federal da Paraíba); Tiago Nascimento (Universidade Federal da Paraíba)

TU-1B: ROBOT LEARNING

ROOM: 2
CHAIRS: Douglas Macharet

Time	Paper ID	Paper Title	Authors
08:30-08:45	57	Integration of Gaussian Mixture Models and Extended Kalman Filter for Trajectory Generation in Robotic Manipulators	Maria Fernanda Paulino Gomes (Unicamp)*; Cesar Silva (Unicamp); Leonardo Olivi (UFJF); Eric Rohmer (Unicamp)
08:45-09:00	96	Optimizing Inner Force Control Loop for PMLSM Using Reinforcement Learning	Lucca Maitan (University of São Paulo)*; Elisa G Vergamini (University of São Paulo); Masa Thema (University of São Paulo); Gabriel Duarte Gonçalves Pedro (University of São Paulo); Juliano Decico Negri (University of São Paulo); Matheus Aparecido Carmo Alves (University of São Paulo); Marcelo Becker (University of São Paulo); Glauco Caurin (University of São Paulo); Thiago Boaventura (University of São Paulo)
09:00-09:15	130	Dynamic Criticity-Aware Scheduling for Predictive Maintenance in Robotic Missions	Lucca Rigueira (Universidade Federal de Minas Gerais); Davi Zumpano (Universidade Federal de Minas Gerais); Paulo Rezeck (Invent Vision)*; Guilherme Potje (Invent Vision); Antonio Otavio Fernandes (Invent Vision); Luiz Fernando Etrusco Moreira (Invent Vision)
09:15-09:30	135	A DRL Approach for Mapless Transportation of Arbitrary Objects	Gabriel Luz (UFMG); Douglas Macharet (UFMG)

TU-2A: AERIAL ROBOTS 2

ROOM: 1
CHAIRS: Richard Andrade

Time	Paper ID	Paper Title	Authors
15:30-15:45	87	Towards a rapidly manufactured VTOL Hybrid UAV	Alysson Lucena (Instituto Tecnológico de Aeronáutica - ITA)*; Neusa Maria Franco Oliveira (Instituto Tecnológico de Aeronáutica - ITA); Fernando Sato (Instituto Tecnológico de Aeronáutica - ITA); Luiz Marcos Gonçalves (Universidade Federal do Rio Grande do Norte - UFRN)
15:45-16:00	88	Evaluation of a UAV vision based platform for fast search and rescue of person on aquatic environment.	Jose Bueno (IFPR)*; Guilherme Setim (IFPR); Celso Buiar (IFPR); Marlon Vaz (IFPR); Marcos Laureano (IFPR); Andre Oliveira (UTFPR); Alvaro Cantieri (Instituto Federal do Paraná Pinhais)
16:00-16:15	100	VisualSimBoat: A High-Fidelity Visual Simulator for Autonomous Surface Vehicles	Alex Salgado (UFF)*; Raphael Guerra (UFF); Charles Vasconcellos (UFF); Luiz Gonçalves (UFRN); Esteban Clua (UFF)
16:15-16:30	134	Developing an Integrated Ground Station for UAV Operations: Telemetry and Mission Planning	Henrique Silva Júnior (Universidade Federal de Minas Gerais); Talita Félix Lúcio (Universidade Federal de Minas Gerais); Marcelo Santos (Universidade Federal de Minas Gerais)*; Guilherme Raffo (Universidade Federal de Minas Gerais)
16:30-16:45	136	ProVANT-Emergentia: Embedded System Design for a Tiltrotor UAV	Luis Emilio Berbel (Universidade Federal de Minas Gerais)*; Felipe Facury (Universidade Federal de Minas Gerais); Lucas Silveira (Universidade Federal de Minas Gerais); Richard Andrade (Universidade Federal de Minas Gerais); Guilherme Raffo (Universidade Federal de Minas Gerais)
16:45-17:00	153	Semi-Autonomous Drone-Robot Positioning for Cleaning Electric Insulators	Natan Oliveira (Universidade Federal de Uberlândia)*; Aniel Morais (Universidade Federal de Uberlândia); Kenji Okada (Universidade Federal de Uberlândia); Éder Moura (Universidade Federal de Uberlândia); Rogério Gonçalves (Universidade Federal de Uberlândia); Pedro Assis (Universidade Federal de Uberlândia); Murilo Rocioli (Universidade Federal de Uberlândia); Rafael Homma (CELESC); Daniel Sudbrack (CELESC)

TU-2B: INDUSTRIAL ROBOTICS

ROOM: 2
CHAIRS: George Thé, Thamiris Lima Costa

Time	Paper ID	Paper Title	Authors
15:30-15:45	37	Feasibility of Using Flamethrowers in Robot Combat Competitions	Glauter Sotero Martins (Federal University of Rio de Janeiro)*; Laura Gomes da Silva (Federal University of Rio de Janeiro); Kese Pontes Freitas Alberto (Federal University of Rio de Janeiro)
15:45-16:00	69	Leveraging Kinect and ROS for Object Representation and Real-Time Environment Interaction in Dynamic Systems	João Almeida (Universidade Federal de Santa Catarina)*; Ebrahim Samer El Youssef (Universidade Federal de Santa Catarina); Leonardo Mejia Rincon (Universidade Federal de Santa Catarina)
16:00-16:15	74	Protocol Performance in Robotics: Analyzing ADS vs. UDP Protocols for ROS2 and TwinCAT Integration	Brenno Domingues (SENAI Institute of Innovation)*; Thamiris Lima Costa (SENAI Institute of Innovation); Marco Meireles (SENAI Institute of Innovation); Lidomar Becker (SENAI Institute of Innovation); Jonas Greschuk (SENAI Institute of Innovation); Diego de Souza (SENAI Institute of Innovation); Ismael Secco (SENAI Institute of Innovation); Luis Trabasso (SENAI Institute of Innovation)
16:15-16:30	117	Blockly and ROS: A Visual Programming Interface for Robot Control	Guilherme Serra Francisco Pinel (Universidade Federal de Viçosa)*; Alexandre Santos Brandão (Universidade Federal de Viçosa); Rejane Faria (Universidade Federal de Viçosa)
16:30-16:45	120	Software application for easy motion control and 3D visualization of a COMAU Smart SiX Manipulator	Iago Guilherme Vieira (Universidade Federal de Minas Gerais); Luiza Soares (Universidade Federal de Minas Gerais); Gilmar Cruz Júnior (Universidade Federal de Minas Gerais)*; Filipe Rocha (Universidade Federal de São João Del Rei); Gustavo Medeiros Freitas (Universidade Federal de Minas Gerais)
16:45-17:00	126	IoT Solution for Physical Activity Monitoring with Gamification and Machine Learning	Andouglas Silva Junior (IFRN)*; Igor Gabriel Dantas Rocha (IFRN); João Emanuel Candido G Silva (IFRN); Thales Adriel S Araújo (IFRN); Danilo Cortez Gomes (IFRN)

WE-1A : AERIAL ROBOTS 3

ROOM: Auditorium
CHAIRS: Alexandre Santos Brandão

Time	Paper ID	Paper Title	Authors
08:30-08:45	123	Landing for the Hunt: UAV-UGV Cooperation in a Predator-Prey Scenario	Felipe dos Anjos Rezende (Universidade Federal de Viçosa)*; Guilherme Serra Francisco Pinel (Universidade Federal de Viçosa); Alexandre Santos Brandão (Universidade Federal de Viçosa)
08:45-09:00	155	Exploring the Impact of Keypoint Precision on Vision-Based Autonomous Navigation	João Aires Marsicano (University of São Paulo)*; Felipe Tourinho (University of São Paulo); Marco Tayar (University of São Paulo); Marcelo Becker (University of São Paulo)
09:00-09:15	156	Development and Application of Drones in Education: A STEAM Approach in Educational Robotics	Gustavo da Silva Nascimento Costa (IFBAIANO); João Vitor Nascimento (IFBAIANO); Jeovana Miranda Souza (IFBAIANO); Rafael Gomes de Oliveira (IFBAIANO); Sávio Pessôa Afonso (IFBAIANO); Durval Ferreira Sobrinho Junior (IFBAIANO); Rian Cesar Oliveira Souza (IFBAIANO); Leandro dos Santos (IFBAIANO)*; Fábio Santos Lima (IFBAIANO); Reinaldo Monteiro Cotrim (IFBAIANO); Hauã Henri Simões dos Santos (Colégio Pequeno Príncipe)
09:15-09:30	158	Row navigation using LiDAR in autonomous agricultural vehicles	Jamil Baltazar (Universidade Federal de Viçosa); Alexandre Brandão (Universidade Federal de Viçosa)*; André Coelho (Universidade Federal de Viçosa)

WE-2A: AUTONOMOUS SYSTEMS

ROOM: 1
CHAIRS: Valdir Grassi Jr

Time	Paper ID	Paper Title	Authors
10:00-10:15	140	Kinematic Control of Manipulators using Multi Deep Q-Learning	Estanislau Filho (Universidade Federal de Minas Gerais)*; Mario Campos (Universidade Federal de Minas Gerais); Armando Neto (Universidade Federal de Minas Gerais)
10:15-10:30	27	Vehicle Re-identification in BEV Space with Deep Cosine Metric Learning	Bruno de Oliveira (University of Sao Paulo)*; Ruan Bispo (University of Limerick); Valdir Grassi Jr (University of Sao Paulo)
10:30-10:45	40	Simultaneous Localization and Communication Based on UWB for UAV Applications	Luis Vital (Universidade Federal de Uberlândia); Daniel Ramos (Universidade Federal de Uberlândia)*
10:45-11:00	54	Control of an unmanned aerial vehicle using a deep reinforcement learning approach	Adson Alves (UNICAMP)*; Alexandre Simões (UNESP); Esther Colombini (Unicamp)
11:00-11:15	98	Catadioptric omnidirectional vision system for autonomous vehicles	Marcelo Villas Boas (Instituto Mauá de Tecnologia)
11:15-11:30	53	Simulation-Based Autonomous Drone Navigation for Security and Monitoring Using Deep Reinforcement Learning	Thássio Silva (UFSM)*; Anselmo cukla (UFSM); Kauê Bonfá (UFSM); Angela Mahlke (UFSM); Leonardo Brisolla (UFSM); Mikael Nascimento (UFSM); Gabriela Goulart (UFSM); Solon Bevilacqua (UFG); Joao Pedro Azenha Righi (UFSM); Evandro Luz Dorneles (UFSM)

WE-2B: MOBILE ROBOTICS

ROOM: 2
CHAIRS: Gilmar Pereira P. Cruz Júnior

Time	Paper ID	Paper Title	Authors
10:00-10:15	49	Frontier Voronoi-based Algorithm to Expanding Coverage and Connectivity in the Internet of Robotic Things	Weslley Farias (Universidade Federal de Sergipe)*; Raimundo Freire (Universidade Federal de Campina Grande); Elyson Carvalho (Universidade Federal de Sergipe); José Gilmar (Universidade Federal de Sergipe); Eduardo Freire (Universidade Federal de Sergipe / Facultad de Ciencias Exactas y Tecnología, UNT.); Lucas Molina (Universidade Federal de Sergipe)
10:15-10:30	85	Enhancing the Autonomous Mapping and Navigation Unit for Service Robots	Natan Carvalho Rocha (UFMG)*; Luiza Gonçalves Soares (UFMG); Gabriel Elan Soares (UFMG); Gilmar Pereira P. Cruz Júnior (UFMG); Gabriel Malaquias (UFMG); Gabriel Gomes (UFMG); Hector Azpurua (UFMG); Gustavo Freitas (UFMG); André Cid (Instituto Tecnológico Vale e Programa de Pós Graduação em Engenharia Elétrica (PPGEE - UFMG)); Arthur Vangasse (UFMG)
10:30-10:45	94	Deep Learning for Lidar Data Upsampling to Improve Autonomous Navigation Mapping	Marlon Santos (Universidade Federal de Goiás); Murilo Correia (Universidade Federal de Goiás)*; Álisson Cardoso (Universidade Federal de Goiás); Carlos Bezerra (Instituto Federal de Goiás); Flávio Vieira (Universidade Federal de Goiás)
10:45-11:00	110	State and Localization Estimation for Self-Driving Cars with Unscented Kalman Filter	Sophia Nobre Benevides (University of São Paulo)*; Nícolas Rosa (University of São Paulo); Valdir Grassi Junior (University of São Paulo); Marco Henrique Terra (University of São Paulo)
11:00-11:15	116	Gesture and Emotion Recognition System for Autonomous Vehicle Control	Thayron Hudson (UFV); Hiago Batista (UFV); Alexandre Brandão (UFV); Ketia Moreira (UFV)
11:15-11:30	129	SLAM-Based 2D Mapping and Route Planning for Autonomous Mobile Robot Navigation	Luciano Moreira (Universidade Federal de Viçosa)*; Alexandre Santos Brandão (Universidade Federal de Viçosa)

WE-3A: ROBOT PERCEPTION AND VISION IN ROBOTICS

ROOM: 1
CHAIRS: Paulo Drews Jr., Paulo Rezeck

Time	Paper ID	Paper Title	Authors
13:00-13:15	77	Drivable area detection in open-pit mining with 4D radar data	Mara Dalila Silva (UFMG)*; Gustavo Freitas (UFMG)
13:15-13:30	90	Application of computer vision in surveillance cameras to identify criminal approaches	Bruno Coelho (UFJF)*; André Marcato (UFJF); Iago Biundini (UFJF)
13:30-13:45	115	Position Ground Truth For a Round Robot Using LiDARs	João Victor Lourenço Aguiar (University Center of FEI)*; Flavio Tonidandel (University Center of FEI)
13:45-14:00	125	Thermal Super-Resolution via Intrinsic Motion coupled to a Pan-Tilt Robotic System	Vitor Holler (Universidade Federal de Minas Gerais); Guilherme Potje (Invent Vision); Paulo Rezeck (Invent Vision)*; Gustavo Medeiros Freitas (Universidade Federal de Minas Gerais); Antonio Otavio Fernandes (Invent Vision); Luiz Fernando Etrusco Moreira (Invent Vision
14:00-14:15	127	Impact of Synthetic Data from Diffusion Models on Weed Detection Performance	José Garcia Ramos (FURG)*; Tatiana Schein (FURG); Larissa Gomes (FURG); Stephanie Brião (FURG); Kristofer Kappel (FURG); Paulo Borges (CSIRO); Felipe Oliveira (UFAM); Rodrigo Guerra (FURG); Paulo Drews-Jr (FURG)
14:15-14:30	132	Low-Light Image Quality Enhancement through Bayesian Optimization using Gaussian Processes	Gabrielly Rodrigues (UFAM); Alex Viana (UFAM); Laura Martinho (UFAM); João Cavalcanti (UFAM); José Pio (UFAM); Felipe Oliveira (Federal University of Amazonas)
14:30-14:45	138	Review of Surface Reconstruction: From Classical Methods to Neural Radiance Fields	João Francisco Lemos (Universidade Federal do Rio Grande)*; Kristofer Kappel (Universidade Federal do Rio Grande); Gabriel Dorneles (Universidade Federal do Rio Grande); Stephanie Loi Brião (Universidade Federal do Rio Grande); Felipe Oliveira (Universidade Federal do Amazonas); Paulo Drews (Universidade Federal do Rio Grande); Nelson Duarte (Universidade Federal do Rio Grande)
14:45-15:00	152	Vision-Based Plant Disease Identification for Autonomous Crop Management Systems	Emanuelle Gil (UFAM); Lucas Dias (UFAM); Paulo Borges (CSIRO); Paulo Drews Jr. (FURG); Alternei Brito (UFAM); Felipe Oliveira (Federal University of Amazonas)

WE-3B : LEGGED ROBOTICS 2

ROOM: 2
CHAIRS: Marcelo Becker

Time	Paper ID	Paper Title	Authors
13:00-13:15	89	Evaluation of noise parameters influence in an invariant extended kalman filter for quadruped robots using regression analysis	Sofia Castaño Vanegas (Universidad Autónoma de Occidente)*; Jhon Gonzalez Riascos (Universidad Autónoma de Occidente); Marcelo Becker (Universidade de Sao Paulo); Vivian Suzano Medeiros (Universidade de Sao Paulo); Javier Castillo Garcia (Universidad Autónoma de Occidente)
13:15-13:30	91	Neural Network-Based Velocity Control for Dynamic Obstacle Avoidance in Legged Robots	João Pedro Garcia (University of São Paulo)*; Juliano Negri (University of São Paulo); Vivian Suzano Medeiros (University of São Paulo); Marcelo Becker (University of São Paulo)
13:30-13:45	99	Comprehensive Review of Contact Estimation Methods for Legged Robots	Masa Thema (USP)*; Vivian Suzano Medeiros (USP); Marcelo Becker (USP)
13:45-14:00	101	Performance Comparison of Different Localization Methods for Legged Robots In Indoor Environments	Matheus Della Rocca Martins (Universidade de São Paulo)*; Vivian Suzano Medeiros (Universidade de São Paulo); Matheus Aparecido do Carmo Alves (Universidade de São Paulo); Gabriel Duarte Gonçalves Pedro (Universidade de São Paulo); Marcelo Becker (Universidade de São Paulo); Thiago Boaventura (Universidade de São Paulo)
14:00-14:15	111	Performance Comparison of Common Low-level State Estimators for Legged Robots	André Vecchione (Universidade de São Paulo)*; Thiago Boaventura (Universidade de São Paulo)
14:15-14:30	124	Proprioceptive Estimation of Foot Slip Direction for Legged Robots	Paulo Teixeira Vale de Carvalho (PUC-Rio)*; Vivian Suzano Medeiros (University of Sao Paulo); Marco Meggiolaro (DEM-PUC-Rio)
14:30-14:45	145	A Comparative Study of Model-Based and Learning-Based Locomotion Control for Quadruped Robots in Oscillatory Environments	Gabriel Bermudez (Universidade de São Paulo)*; Hélio Jacinto Cruz Neto (Universidade de São Paulo); Matheus Aparecido do Carmo Alves (Universidade de São Paulo); Vivian Suzano Medeiros (Universidade de São Paulo); João Augusto Fernandes Barbosa (Universidade de São Paulo); Marcelo Becker (Universidade de São Paulo); Thiago Boaventura (Universidade de São Paulo)
14:45-15:00	159	Object Distance Estimation System with Deep Neural Networks	André Caraíba (Universidade Federal de Goiás)*; Alisson Cardoso (Universidade Federal de Goiás)

WE-4A: MANIPULATION

ROOM: 1
CHAIRS: Ebrahim El'Youssef, Guilherme Vianna Raffo

Time	Paper ID	Paper Title	Authors
15:30-15:45	28	Development of a Low-Cost Biomechanical Hand Prosthesis Prototype	Daniel Krepsky (Universidade Federal de Santa Catarina)*; João Pedro da Silva Cardoso (Universidade Federal de Santa Catarina); Gustavo Cézar G. T. (Universidade Federal de Santa Catarina); Daniel Hermann Lickfeld (Universidade Federal de Santa Catarina); Leonardo Mejia Rincon (Universidade Federal de Santa Catarina); Ebrahim Samer El Youssef (Universidade Federal de Santa Catarina)
15:45-16:00	43	An Extension of the MB-RRT Method to Solve the Inverse Kinematics Problem for Real Robot Manipulators	David Santos (Federal University of Campina Grande)*; Raimundo Freire (Federal University of Sergipe); Lucas Molina (Federal University of Sergipe); Matheus Santos (University of Limerick); Elyson Carvalho (Federal University of Sergipe); Gilmar Carvalho (Federal University of Sergipe); Eduardo Freire (Federal University of Sergipe)
16:00-16:15	70	Mechanical and Electronic Design of a Service Robot for RoboCup@Work	Gustavo Constantino (Universidade Federal de Minas Gerais)*; Pedro Boseja (Universidade Federal de Minas Gerais); Kaique Silva (Universidade Federal de Minas Gerais); Caio Sousa (Universidade Federal de Minas Gerais); Flávio Trindade (Universidade Federal de Minas Gerais); Laura Albino (Universidade Federal de Minas Gerais); Gustavo Freitas (Universidade Federal de Minas Gerais); Guilherme Vianna Raffo (Universidade Federal de Minas Gerais)
16:15-16:30	76	Pressure-Based Force Control for Hydraulic Actuators with Proportional Flow Valves	Cícero Zanette (University of São Paulo); Elisa G. Vergamini (University of São Paulo); Leonardo F. dos Santos (University of São Paulo); Lucca Maitan (University of São Paulo)*; Hélio J. Cruz Neto (University of São Paulo); Matheus Aparecido Carmo Alves (University of São Paulo); Thiago Boaventura (University of São Paulo)
16:30-16:45	104	Navigation System for a Service Robot in RoboCup@Work	Diogo Prado (UFMG)*; Samuel Morais (Universidade Federal de Minas Gerais); João VItor Camargos (Universidade Federal de Minas Gerais); Caio Veras (Universidade Federal de Minas Gerais); Júlio César Flores (Universidade Federal de Minas Gerais); Gustavo Freitas (Universidade Federal de Minas Gerais); Guilherme Raffo (Universidade Federal de Minas Gerais)
16:45-17:00	141	Collaboration between UGV and robotic arm for pick and place tasks	Aline Gabriela Loiola Almeida (CEFET-MG)*; Vitor Eduardo Freitas Oliveira (CEFET-MG); Accacio Ferreira dos Santos Neto (CEFET-MG); Anderson Grandi Pires (CEFET-MG); Vinícius Barbosa Schettino (CEFET-MG)

WE-4B: HUMAN ROBOT INTERACTION 2

ROOM: 2
CHAIRS: Flávio Tonidandel

Time	Paper ID	Paper Title	Authors
15:30-15:45	15	Intelliview: Advancing Sustainability and Security with IoT-Based Smart Windows	Guilherme Maciel (Colégio Militar de Juiz de Fora); Fátima Fona (Colégio Militar de Juiz de Fora); Germano Caovilla (Colégio Militar de Juiz de Fora); Sofia Silveira (Colégio Militar de Juiz de Fora); Bruna Cavaca (Colégio Militar de Juiz de Fora)
15:45-16:00	80	A Modular Architecture for Insulator Defect Detection Using Advanced Feature Extraction	Giovanni Martins de Sá Júnior (Universidade Federal de Minas Gerais); Paulo Rezeck (Universidade Federal de Minas Gerais)*; Guilherme Potje (Invent Vision); Gabriel Ferreira (Invent Vision); Hermes Aguiar Magalhães (Universidade Federal de Minas Gerais); Carlos Alexandre Meireles do Nascimento (Cemig - Companhia Energética de Minas Gerais); Antonio Otavio Fernandes (Invent Vision); Luiz Fernando Etrusco Moreira (Invent Vision)
16:00-16:15	93	Legibility on Social Robot Navigation: A Survey	Leonardo Nogueira (University Center of FEI)*; Plinio Thomaz Aquino Junior (Centro Universitario FEI); Flavio Tonidandel (Centro Universitario FEI)
16:15-16:30	144	Review of animatronic faces focusing on human-robot interaction	Marina Rocha (Universidade Federal do Rio Grande - FURG)*; Igor Maurell (Universidade Federal do Rio Grande - FURG); Kris Kapel (Universidade Federal do Rio Grande - FURG); Stephanie Loi Brião (Universidade Federal do Rio Grande - FURG); João Francisco Lemos (Universidade Federal do Rio Grande - FURG); Felipe Oliveira (Universidade Federal do Amazonas - UFAM); Paulo Drews (Universidade Federal do Rio Grande - FURG); Rodrigo Guerra (Universidade Federal do Rio Grande - FURG)
16:30-16:45	73	Automated Mouth State Recognition for Robotic Feeding Assistance	Samuel Peña (Facultad de Ciencias Técnicas, Universidad Internacional del Ecuador)*; Viviana Moya (Facultad de Ciencias Técnicas ,Universidad Internacional del Ecuador); Fernando Chicaiza (Centro de Investigación MIST,Carrera de Ingeniería Industrial,Universidad Tecnológica Indoamérica); Danilo Chávez (Dep. Automatización y Control Industrial Escuela Politécnica Nacional); Juan Pablo Vásconez (Energy Transformation Center Faculty of Engineering Universidad Andres Bello); Andrea Pilco (Facultad de Ciencias Técnicas Universidad Internacional del Ecuador)
16:45-17:00	52	Development of a Printed Circuit Board for Electromyographic Signal Acquisition	Tawan Oliveira (Universidade Federal de Juiz de Fora); Exuperry Costa (Universidade Federal de Juiz de Fora)*; Pedro Almeida (Universidade Federal de Juiz de Fora); Leonardo Olivi (Universidade Federal de Juiz de Fora); Wolmar Neto (Universidade Federal do Espírito Santo)