CoDiT 2026

12th-2026 International Conference on Control, Decision and Information Technologies

CoDIT 2026
July 13-16, 2026 - Bari, Italy

IEEE Advancing Technology for Humanity

Politecnico di Bari

LISIER LR16ES03

IEEE SMC Systems, Man, and Cybernetics Society

IEEE Control Systems Society

IEEE Robotics & Automation Society

Welcome Message

It is with great pleasure that we welcome all the participants of the 12th Conference on Control, Decision and Information Technologies (CoDIT 2026) at the Polytechnic University of Bari – Orabona Street 4, 70125 Bari, Italy, July 13-16, 2026.

CoDIT has grown to become one of the largest conferences organized in Europe and in the Mediterranean region, establishing itself as a major reference in the fields of Control, Optimization, Decision, Computer Science and Information Technologies. From its first edition in 2013 in Tunisia, CoDIT has gained increasing international importance and recognition, attracting researchers, engineers and practitioners from around the world.

This year, CoDIT received over 950 submissions, resulting in the organization of 91 technical sessions, 2 panel sessions, a IEEE WIE workshop and one educational and pedagogical workshop. The conference is further enriched by three plenary talks delivered by internationally renowned researchers and experts.

This year the conference also features a cultural event with a gala dinner, which will be held on Wednesday, July 15, 2026, at Villa de Grecis.

CoDIT 2026 is organized under the technical sponsorship of the IEEE Control Systems Society, the IEEE Systems, Man, and Cybernetics Society, and the IEEE Robotics and Automation Society, with the generous support of the Polytechnic University of Bari – Italy and its Laboratory of Automation and Control.

Finally, an event of this size and importance could not be organized without the strong commitment of all the members of the organizing committee, together with the support and dedication of many volunteers.

On behalf of the Organizing Committee

Maria Pia Fanti, Polytechnic University of Bari, Italy
Agostino Marcello Mangini, Polytechnic University of Bari, Italy
Michele Roccotelli, Polytechnic University of Bari, Italy
Achraf Jabeur Telmoudi, University of Tunis, Tunisia
MengChu Zhou, New Jersey Institute of Technology, USA

CoDIT 2026 Committees

General co-Chairs

Maria Pia Fanti, Polytechnic University of Bari, Italy
MengChu Zhou, New Jersey Institute of Technology, USA
Achraf Jabeur Telmoudi, University of Tunis, Tunisia

Program co-Chairs

Francesco Basile, University of Salerno, Italy
Martin Fabian, Chalmers University of Technology, Sweden
Zhiwu Li, Xidian University, China
Agostino Marcello Mangini, Polytechnic University of Bari, Italy
Bozenna Pasik-Duncan, University of Kansas, USA

Advisory committee co-Chairs

Stjepan Bogdan, University of Zagreb, Croatia
Nizar Bouguila, University of Concordia, Canada
Owen Casha, Malta University, Malta
Dimos Dimarogonas, KTH Roy Ins Tech, Sweden
Mariagrazia Dotoli, Poly. Univ. of Bari, Italy
Antonella Ferrara, University of Pavia, Italy
Giancarlo Fortino, University of Calabria, Italy
Alessandro Giua, University of Cagliari, Italy
James H. Lambert, University of Virginia, USA
Dimitri Lefebvre, Université Le Havre, France Carla Seatzu, University of Cagliari, Italy
Bahram Shafai, ECE Northeastern University, USA
Jian-Qiao Sun, University of California, USA
Enrique H. Viedma, University of Granada, Spain
Farouk Yalaoui, UTT, France

Publication Chair

Dimitri Lefebvre, France
Michele Roccotelli, Italy

Women's Activities co-Chairs

Mariagrazia Dotoli, Italy
Maria A. del Cacho Estil-les, Italy

Work in Progress co-Chairs

Carla Seatzu, Italy
Ruotian Liu, Italy
Nhan-Quy Nguyen, France

Special Sessions co-Chairs

Sana Belmokhtar-Berraf, France
Tasseda Boukherroub, Canada
Yassine Ouazene, France
Imen Jegham, Tunisia

Education Activities co-Chairs

Damiano Varagnolo, Norway
Claudia Califano, Italy

Industry co-Chairs

Sébastien Martin, France
Laid Degaa, France

Local Arrangement Committee

Michele Roccotelli, Italy (Chair) - Achraf Jabeur Telmoudi, Tunisia - Andres Felipe Dorado, Switzerland - Yassine Ouazene, France - Jaouher Chrouta, Tunisia

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Owen Casha, Malta – Nizar Bouguila, Canada – Maria Pia Fanti, Italy – Alessandro Giua, Italy – Zhiwu Li, China – Belkacem Ould-Bouamama, France – Bozenna Pasik-Duncan, USA (Chair) – Alain Quilliot, France – Achraf J. Telmoudi, Tunisia (Chair) – Enrique H. Viedma, Spain.

Venue and Practical Information

CONFERENCE LOCATION

The conference will be held at **the Polytechnic University of Bari – Orabona Street 4, 70125 Bari, Italy**, July 13–16, 2026. Located just 2 kilometres from the city centre of Bari, the vibrant capital of the Apulia region in southern Italy, the Polytechnic University of Bari is one of Italy's leading technical universities, renowned for its excellence in engineering and applied sciences. The university campus is easily accessible by public transport and on foot, making it convenient for all participants to explore the city during their stay. The city of Bari sits on the Adriatic coast, offering participants a unique blend of rich history, remarkable architecture and warm Mediterranean hospitality. With its charming old town, the iconic Basilica of San Nicola, and a lively waterfront promenade, Bari provides an inspiring and welcoming setting for an international scientific event.

CONFERENCE REGISTRATION AND SCHEDULE DETAILS

Registration will open on 13th July at 07:15, with sessions starting at 08:00. Coffee breaks and lunches will be provided at the conference venue. A detailed program schedule is available here:

https://www.codit2026.com/CoDIT2026-Program.pdf

GALA DINNER

As part of CoDIT 2026, we are delighted to invite you to an exclusive gala dinner on Wednesday, 15 July 2026, at 8:00 PM, at the magnificent Villa De Grecis - Via delle Murge 63, 70124 Bari, Italy.

This enchanting venue will set the perfect stage for an unforgettable evening of fine dining, warm conversation and meaningful connections among the international scientific community.

Attendance is reserved for full registration holders and participants holding a gala dinner ticket.

To get from **Politecnico di Bari** to **Villa De Grecis**, just 2.7 km to the west, the journey is simple whichever way you choose. By taxi, it's about 5 minutes for €6–8, heading west along Via Re David. By AMTAB bus (€1.50), the trip takes around 15 minutes on the same road. And if the weather is nice, it's also a pleasant 30-minute walk along a flat, straightforward route.

Program

Monday - July 13, 2026							Tuesday - July 14, 2026						
Registration (7:15 - 18:20)	(8:00 - 10:00) P-Sessions 1						(8:00 - 10:00) P-Sessions 5						IEEE WIE Activities
	P-01	P-02	P-03	P-04	P-05	P-06	P-25	P-26	P-27	P-28	P-29		
	(10:00 - 10:20) Coffee break						(10:00 - 10:20) Coffee break						
	(10:20- 11:20)						(10:20- 11:10)						
	Opening Ceremony & Keynote 1						Panel Sessions						
	(11:20 - 13:00) P-Sessions 2						(11:10 - 13:00) P-Sessions 6						
	P-07	P-08	P-09	P-10	P-11	P-12	P-30	P-31	P-32	P-33	P-34		
	(13:00 - 14:00) Lunch						(13:00 - 14:00) Lunch						
	(14:00 - 16:00) P- Sessions 3						(14:00- 16:00) P- Sessions 7						IFAC Education Workshop
	P-13	P-14	P-15	P-16	P-17	P-18	P-35	P-36	P-37	P-38	P-39		
	(16:00- 16:50)						(16:00- 16:50)						
	Keynote 2						Keynote 3						
	(16:50 - 17:10) Coffee break						(16:50 - 17:10) Coffee break						
	(17:10 - 18:50) P-Sessions 4						(17:10 - 18:50) P-Sessions 8						
	P-19	P-20	P-21	P-22	P-23	P-24	P-40	P-41	P-42	P-43	P-44		

Wednesday - July 15, 2026					Thursday - July 16, 2026				
(8:00 - 10:00) P-Sessions 9					(8:00 - 10:00) P-Sessions 14				
P-45	P-46	P-47	P-48	P-49	P-55	P-56	P-57	P-58	P-59
(10:00 - 10:20) Coffee break					(10:00 - 10:20) Coffee break				
(10:20 - 12:00) P-Sessions 10					(10:20 -12:20) P-Sessions 15				
P-50	P-51	P-52	P-53	P-54	P-60	P-61	P-62	P-63	H-01
(12:00 -14:20) V-Sessions 11									
V-01	V-02	V-03	V-04	V-05					
V-06	V-07	V-08	V-09						
(14:20 -16:40) V-Sessions 12									
V-10	V-11	V-12	V-13	V-14					
V-15	V-16	V-17	V-18						
(16:40 - 19:00) V-Sessions 13									
V-19	V-20	V-21	V-22	V-23					
V-24	V-25	V-26	V-27						
(20:00 - 22:30) Gala dinner									

IMPORTANT

Accepted file formats for presentations are PDF and PPT

PRESENTATIONS - DURATION

- **Keynote:** The duration of each presentation is of 40 minutes plus 10 minutes for questions.
- **Oral presentation:** The max duration of each presentation is of 13 minutes plus 4 minutes for questions

Virtual Sessions: Virtual sessions **(V-01 to V-28)** will be held **100% online** on our virtual platform and will **not** be streamed or broadcast in any physical room.

In-Person Sessions: In-person sessions **(P-01 to P-63)** will be **live-streamed** and accessible online via our virtual platform.

Hybrid Session H-01: will be held virtually, with the chairs physically present in **Room 11**. It will be broadcast both in-room and online.

Virtual platform website: https://www.ieee-codit2026.com

Keynotes

KEYNOTE 1

(July 13, 2026 / 10:30-11:20)

Systems Interpolarity and the Negotiation of Competing Requirements

Prof. James H. Lambert (IEEE Fellow)

University of Virginia, USA

Chair: Prof. Mariagrazia Dotoli, Polytechnic University of Bari, Italy

Room:"Aula Magna Attilio Alto"

Abstract

"Rub out the word." — *Brion Gysin*, artist, writer, and originator of the *cut-up method* in the mid-twentieth century.

This keynote explores a relationship between knowledge automation and the evolving roles of human and machine agency in emerging control, decision, and information technologies. The talk describes systems interpolarity, with distinctions of animate and inanimate forms of intelligence that are jointly beneficial to management of technology-based systems.

Drawing on ideas associated with Max Horkheimer and Theodor W. Adorno, the keynote considers how technologies designed for optimization and efficiency can amplify human judgment, ethical awareness, embodied understanding, and sensitivity to social and cultural contexts. Several themes will be discussed, including the reinvention of legacy technologies, ambiguities of intent and purpose, and the uses of for dialogue and reflection in routine systems design practices.

The presentation will address implications for monitoring, testing, and evaluation of distributed and multi-scale engineering systems across their full lifecycles. Examples will draw from recent applications in energy, healthcare, aerospace, logistics, communications, economic development, manufacturing, and security systems.

For the CoDIT 2026 community, the talk encourages both research innovation and practical approaches for balancing competing goals, requirements, and perspectives across varied technical and knowledge domains.

Biography of Prof. James H. Lambert

Prof. James H. Lambert is the Janet Scott Hamilton & John Downman Professor at the University of Virginia, USA. He is a Fellow of the IEEE, a Fellow of the American Association for the Advancement of Science, a Fellow of the Society for Risk Analysis, and a Fellow of the American Society of Civil Engineers. He is known for pioneering research in risk analysis addressing the disruption of system order. He is a recipient of several international service and educator awards, and best-paper awards from the IEEE and other venues. He served as President of the worldwide Society for Risk Analysis. He served for eleven years as Editor-in-Chief of a Springer journal of systems engineering. He is an Associate Editor of the IEEE Open Journal of Systems Engineering, and is an Area Editor of the Wiley journal Risk Analysis.

KEYNOTE 2

(July 13, 2026 / 16:00-16:50)

Evolvable Operational Digital Twin Architecture for Real-Time Field-Level Control of Distributed, Adaptable and Self-Organizing Manufacturing Systems

Prof. Birgit Vogel–Heuser *(IEEE Fellow)*

Technical University of Munich (TUM), Germany

Chair: Prof. **Maria Pia Fanti**, Polytechnic University of Bari, Italy

Room:"Aula Magna Attilio Alto"

Abstract

Integrating digital representations into industrial automation offers substantial benefits, particularly in enhancing the understanding and optimization of manufacturing processes during runtime, as exemplified by the KI.Fabrik (translated as AI.Factory) at the German Museum in Munich (https://kifabrik.mirmi.tum.de). Use cases illustrate these advantages: dynamic fault handling, where strategies are identified and evaluated within the Digital Twin to maintain operational continuity, and dynamic task scheduling optimization based on the real-time status of the field-level system. Beyond enabling new use cases by integrating a live Digital Twin into industrial automation, strict hard real-time and reliability requirements should be met, posing significant challenges due to various factors. Among the challenges, the stringent requirements for real-time performance and reliability create a bottleneck in the volume of data that can be utilized. Consequently, an exact integraareon between data exploration processes within the Digital Twin and its response is essential to meet these demands. Addressing these challenges cannot be achieved through a single technology alone but requires a collective approach involving multiple domains, operational phases and a holistic perspective on signal flow and processing. This talks presents a Digital Twin architecture that integrates concepts from skill-based systems, multi-agent systems, and Digital Twin technologies across the entire lifecycle of an automated production plant. It is demonstrated through use cases, showing how Digital Twins can be used at runtime.

Biography of Prof. Vogel-Heuser - https://www.professoren.tum.de/en/vogel-heuser-birgit

The research interests of **Prof. Vogel-Heuser** are in the area of systems and software engineering as well as in the modeling of distributed and reliable embedded systems.

Birgit Vogel-Heuser holds a Dipl. Ing. degree in electrical engineering and a Dr.-Ing. degree in mechanical engineering from the RWTH Aachen, Germany. Over ten years, she acquired industrial experience in industrial automation. After different professorship positions, she was appointed to the Chair of Automation and Information Systems at the Technical University Munich in 2009. Her research is focussing on evolvable field-level automation and appropriate architectures for manufacturing and logistics systems. She is a Fellow of the IEEE, a member of the National Academy of Science and Engineering in Germany. She has held the Order of Merit of the Federal Republic of Germany since 2024.

KEYNOTE 3

(July 14, 2026 / 16:00-16:50)

Generative Digital Twins: Principles, Architecture, Methodology, and Applications

Prof. Giancarlo Fortino *(Fellow of IEEE)*

University of Calabria, Italy

Chair: Prof. Bozenna Pasik-Duncan, Polytechnic University of Bari, Italy

Room: "Aula Magna Orabona"

Abstract

Digital Twins (DTs) are software replicas that not only mirrors physical entities but can also proactively predict, control, optimize and simulate their behavior. Born in the manufacturing sector, this concept after an initial hype stayed untouched for decades. The rise of Internet of Things (IoT) and Artificial Intelligence (AI) enabled DT, respectively, to exchange real-world data and to fully exploit it for fulfilling its own goals. Very recently, Gener-ative AI (Gen-AI) methods started being sporadically applied to DT in different contexts and with different targets. In this talk,starting from our experiences on design, implementation and evaluation of DTs and, more recently, of Opportunistic DTs, we first provide a definition for the Generative DT (GDT) which embraces main distinctive aspects and potential of current and future Gen-AI-aided DTs.

In particular, we disclose the role of Gen-AI in conciliating the model- and the data-driven approach for the development of DTs. Then, we analyze the added value of main Gen-AI architectures and development methodologies for maximizing the effectiveness and the performance of DTs operating in the IoT domain and deployed in the device-edge-cloud continuum.

Finally, we illustrate the potential of GDT in emblematic use cases in the Smart City, Smart Manufacturing, Smart Water Systems, Smart Robotics, Smart Educationand, more in general, in Smart IoT-driven domains.

Biography of Prof. Giancarlo Fortino

Giancarlo Fortino (FIEEE'22) is Professor of Computer Engineering at the DIMES Dept. of University of Calabria, Italy. He has a PhD in Systems and Computer Engineering from Unical in 2000. His research interests include wearable computing, IoT and applied artificial intelligence. He is Highly Cited Researcher 2020-2025 by Clarivate in Computer Science and has about 35000 citations and an h-index of 90 in GS. He is author of 800+ papers in top-level journals, conferences & book series. He is the founding series editor of the IEEE Press Book Series on Human-Machine Systems and AE of many premier IEEE Transactions/Journals. He is cofounder-CEO of SenSysCalSrl, Unical spinoff on IoT systems. Fortino is the Vice President of Cybernetics of the IEEE SMC society.

Workshops and Panel Sessions

IEEE Women in Engineering (WiE) Activities

Tuesday - July 14, 2026 / 8:00-12:00 *Room: Room 11*

Women's Activities Co-Chairs:
***Mariagrazia Dotoli**, Polytechnic University of Bari, Italy*
***Maria A. del Cacho Estil-les**, Polytechnic University of Bari, Italy*

This event celebrates women's contributions to control and decision technologies, fostering networking, mentoring, and collaborative opportunities within the CoDIT community.

Panel Session 1

Building Equitable Human–AI Futures: Intelligence, Inclusion, and Shared Responsibility

Tuesday - July 14, 2026 / 10:20-11:00 *Room: Room 11*

Moderator: ***Bozenna Pasik-Duncan**, University of Kansas, USA*

Speakers:

***Hamidou Tembine**, University of Quebec in Trois-Rivières (UQTR), Canada*

***Ramalatha Marimuthu**, iExplore Foundation for Sustainable Development, India*

***Dominique Duncan**, University of Pennsylvania, USA*

Abstract

Part I: Unbiasing Agentic Machine Intelligence

This part of the Panel will bring together researchers from control theory, statistical mathematics, machine learning, optimization, information theory, and stochastic systems to identify common principles governing bias, uncertainty, observability, and robustness. The objective is to stimulate a scientific research agenda on the fundamental limits of learning and decision-making under incomplete information and to advance the mathematical foundations of trustworthy agentic machine intelligence.

Part II: Sharing the Workload: A Systems Thinking Perspective on Cross-Cultural Inclusivity in Workplaces and Homes

This part of the Panel seeks to encourage interdisciplinary dialogue on how systemic transformation — rather than isolated policy intervention — can create environments where both professional and domestic responsibilities are more equitably shared, enabling stronger communities and more sustainable global development.

Workshop 1: IFAC Education Workshop

Modeling and Controlling the Classroom: Data-Driven Approaches to Learning Analytics

Sponsored by IFAC Technical Committee 9.4 – Control Education

***Tuesday** - July 14, 2026 / 14:00-18:15* ***Room:** Room 11*

Organizer: Damiano Varagnolo

Norwegian University of Science and Technology, Norway & University of Padova, Italy

This workshop explores the classroom as a dynamical system, applying control and system identification concepts to educational data. Participants will learn to collect and preprocess data from continuous formative assessment platforms, identify models of learning dynamics, and discuss how feedback design can inform teaching interventions. The session combines short lectures with hands-on activities using real datasets and open-source Python tools. Open to control researchers, educators, data scientists, and PhD students — no prior experience in learning analytics required.

The workshop will be available in both in-person and virtual formats to accommodate all participants.

Sessions Titles - Papers ID/Session/Room

In-Person Sessions

Day, Time, TS			Code	Title	Papers ID	Room
Monday - July 13, 2026	8:00 - 10:00	P-Sessions 1	P-01	Artificial Intelligence Systems	406 - 785 - 814 - 456 - 581 - 301	Room 1
			P-02	Intelligent Systems and AI Applications	855 - 75 - 415 - 444 - 43 - 523	Room 3
			P-03	Learning Systems in Engineering	249 - 453 - 546 - 127 - 402 - 240	Room 5
			P-04	Nonlinear Control	293 - 176 - 555 - 678 - 177 - 458	Room 7
			P-05	Data Science and Applications	245 - 348 - 228 - 694 - 751 - 715	Room 9
			P-06	Intelligent Systems	326 - 404 - 44 - 557 - 57 - 778	Room 11
	11:20 - 13:00	P-Sessions 2	P-07	Fault Detection	570 - 351 - 121 - 710 - 416 - 426	Room 1
			P-08	Applied Artificial Intelligence	191 - 269 - 403 - 470 - 166 - 530	Room 3
			P-09	Robotics Systems	805 - 469 - 640 - 128 - 831 - 464	Room 5
			P-10	Applied Optimization	334 - 583 - 272 - 330 - 283 - 504	Room 7
			P-11	Applied Control Systems	78 - 79 - 172 - 342 - 343 - 104	Room 9
			P-12	Transport Optimization	489 - 375 - 547 - 381 - 685	Room 11
	14:00 - 16:00	P-Sessions 3	P-13	Control Applications	347- 145- 587- 701- 204- 304	Room 1
			P-14	Manufacturing System Control	792 - 265 - 23 - 580 - 41 - 167	Room 3
			P-15	Hybrid and Discrete Event Systems	707 - 804 - 118 - 516 - 184 - 332 - 421	Room 5
			P-16	Forecasting Methods	201 - 259 - 370 - 158 - 762 - 520	Room 7
			P-17	Sp Session - Stochastic Systems, Control, Optimization, and Applications	129 - 130 - 123v - 862 - 288 - 175	Room 9
			P-18	System Identification with Applications	599 - 671 - 730 - 529 - 466 - 559	Room 11
	17:10 - 18:50	P-Sessions 4	P-19	Sp Session - Artificial Intelligence and Optimization Methods for Smart Healthcare Systems	780v - 174v -153 - 543 - 446 - 349	Room 1
			P-20	Neural Networks with Applications	100 - 138 - 363 - 803 - 463 - 316	Room 3
			P-21	Robotics Systems	81 - 447 - 374 - 119 - 507 - 525	Room 5
			P-22	Fault Tolerant Control	465 - 741 - 25 - 331 - 150 - 154	Room 7
			P-23	Optimal and Stochastic Control	793 - 111 - 82 - 362 -171	Room 9
			P-24	Scheduling in Engineering	203 - 445 - 610 - 46 - 414 - 409	Room 11

Day, Time, TS			Code	Title	Papers ID	Room
Tuesday - July 14, 2026	(8:00 - 10:00)	P-Sessions 5	P-25	Production and Manufacturing Engineering	398 - 639 - 297 - 505 - 142 - 749	Room 1
			P-26	Sensors and Instrumentation	112 - 818 - 473 - 817 - 302 - 796	Room 3
			P-27	Diagnosis Methods	295 - 753 - 790 - 562 - 836	Room 5
			P-28	Sp Session - Industry 5.0 and Healthcare Applications (Part 1)	221 - 289 - 299 - 321 - 382 - 388	Room 7
			P-29	Sp Session - Emerging Technologies for Safety and Risk Mitigation in Industrial and Occupational Contexts	178v - 211v - 339 - 356 - 368 - 385	Room 9
	11:10 - 12:50	P-Sessions 6	P-30	Multi-Objective Optimization	156 - 133 - 315 - 663 - 430 - 229	Room 1
			P-31	AI and Intelligent Information Systems	605 - 615 - 137 - 261- 246 - 474	Room 3
			P-32	Sp Session - Industry 5.0 and Healthcare Applications (Part 2)	392 - 397v - 644 - 649 - 854v	Room 5
			P-33	Robotics	423 - 236 - 274 - 539 - 481 - 606	Room 7
			P-34	Learning Systems	143 - 358 - 372 - 540 - 455	Room 9
	14:00 - 16:00	P-Sessions 7	P-35	Control Theory	786 - 252 - 411 - 594 - 491 - 427	Room 1
			P-36	Image Processing and Applications	96 - 35 - 250 - 657 - 181 - 434	Room 3
			P-37	Supply Chain Management	621 - 124 - 337 - 654 - 685 - 377 - 652	Room 5
			P-38	Embedded Systems	740 - 187 - 626 - 572 - 758 - 72	Room 7
			P-39	Optimal Control	407 - 838 - 680 - 140 - 122 - 268	Room 9
	17:10 - 18:50	P-Sessions 8	P-40	Predictive Control	670 - 213 - 373 - 437 - 782	Room 1
			P-41	Sp Session - Resilience Analysis and Systems Engineering	262 - 263 - 290 - 366 - 386	Room 3
			P-42	Sp Session - Nonlinear Control Strategies for Robotic Systems	355v - 384 - 549 - 556 - 651	Room 5
			P-43	Sp Session - Applied AI for Emerging Autonomous Systems: Innovations and Challenges	396v - 492v - 573 - 656v - 665	Room 7
			P-44	Mobile and Wireless Communications	602 - 179 - 188 - 135 - 210	Room 9

Day, Time, TS			Code	Title	Papers ID	Room
Wednesday - July 15, 2026	8:00 - 10:00	P-Sessions 9	**P-45**	**Engineering Applications**	147 - 811-535 - 161 – 352 – 787 - 541	Room 1
			P-46	**Signal Processing**	784 - 777 - 226 - 379 - 267 - 71	Room 3
			P-47	**Advanced Control Systems**	736 - 207 - 26 - 600 - 353 - 223	Room 5
			P-48	**Control Design Methods**	413 - 428 - 168 - 190 - 247 - 526	Room 7
			P-49	**System Identification**	781 - 148 - 449 - 684 - 676 - 365	Room 9
	10:20 - 12:00	P-Sessions 10	**P-50**	**Combinatorial Optimization**	627 - 795 - 376 - 809 - 808 - 193 - 84	Room 1
			P-51	**Sp Session - Data-Driven Control and Estimation: Robust Methods for Noisy and Uncertain Systems**	105 - 357 - 360 - 476v - 359 - 477v - 328	Room 3
			P-52	**Nonlinear Systems**	566 - 497 - 498 - 222 - 763	Room 5
			P-53	**Sp Session - Digital Transformation of Healthcare Infrastructure**	200 - 281 - 314v - 389v - 400 - 484	Room 7
			P-54	**Neural Networks in Engineering**	239 - 196 - 588 - 585 - 544 - 49	Room 9
Thursday - July 16, 2026	8:00 - 10:00	P-Sessions 14	**P-55**	**Advanced Methods in Control**	764 - 732 - 189 - 506 - 90 - 877	Room 1
			P-56	**Predictive and Optimal Control**	613 - 551 - 66 - 212 - 361	Room 3
			P-57	**Telecommunication Applications**	173 - 822 - 596 - 394 - 282	Room 7
			P-58	**Forecasting**	205 - 132 - 607 - 169 - 616	Room 9
			P-59	**Safety Science and Information Security**	429 - 305 - 336v -157 - 800	Room 11
	10:20 - 12:20	P-Sessions 15	**P-60**	**Advanced Control Theory and Applications**	872 - 679 - 369 - 860 - 537	Room 1
			P-61	**Energy Control and Power Systems**	99 - 391 - 260 - 165 - 597 - 807 - 496	Room 3
			P-62	**Intelligent Systems and Software Engineering**	821 - 193 - 870 - 317 – 876 - 479v	Room 7
			P-63	**Cyber-Physical Systems Engineering**	620 - 830v - 459 - 74 - 728v - 215v	Room 9
			H-01	**Sp Session - Artificial Intelligence and Metaheuristic Optimization for Intelligent Scheduling and Logistics Systems**	243v - 742v - 485v - 794v - 206v - 879v	Virtual & Room 11

Sessions Titles - Papers ID/Session

Virtual Sessions

Day, Time, TS			Code	Title	Papers ID
Wednesday - July 15, 2026	12:00 -14:20	V-Sessions 11	V-01	Applied Optimization	450 - 278 - 294 - 120 - 716 - 801 - 691 -418
			V-02	Fault Tolerant Control	399 - 438 - 440 - 554 - 242 - 436 -266 - 734
			V-03	Artificial Intelligence	462 - 677 - 592 - 271 - 590 - 448 - 95 - 834
			V-04	Control Design Methods	829 - 839 - 511 - 726 - 503 - 690 - 797 - 689
			V-05	Image Processing base AI	220 - 91 - 783 - 435 - 823 - 756 - 584 - 662
			V-06	Nonlinear Systems	637 - 335 - 816 - 634 - 757- 812 - 202 - 452
			V-07	Intelligent Learning Systems	106 - 125 - 461 - 234 - 318 - 483 - 454 - 845
			V-08	Predictive Control	160 - 712 - 538 - 593 - 824 - 501 - 417 - 608
	14:20 -16:40	V-Sessions 12	V-09	Optimization and Logistics Systems	522 - 238 - 364 - 521 - 815 - 659 - 442 - 846
			V-10	Neural and Intelligent Systems (Part 1)	658 - 47 - 232 - 798 - 257 - 102 - 80 - 636
			V-11	Computational Intelligence	253 - 515 - 405 - 612 - 340 - 577 - 296 - 408
			V-12	Intelligent Applications	345 - 159 - 298 - 717 - 835 - 224 - 629 - 653
			V-13	Control Engineering Applications	696 - 164 - 467 - 574 - 401 - 324 - 219 - 192
			V-14	Combinatorial and Stochastic Optimization	478 - 480 - 70 - 826 - 859 - 686 - 311
			V-15	Embedded Systems	673 - 813 - 713 - 61 - 788 - 333 - 256 - 865
			V-16	Control Theory and Systems	60 - 571 - 432 - 410 - 576 - 683 - 647 - 341
			V-17	Image Processing	327 - 737 - 139 - 329 - 383 - 825 - 791 - 840
			V-18	Energy Control and Power Systems	528 - 755 - 841 - 871 - 586 - 519 - 563

Day, Time, TS			Code	Title	Papers ID
Wednesday - July 15, 2026	16:40 -19:00	V-Sessions 13	**V-19**	**Scheduling and Optimization**	303 - 623 - 270 - 632 - 705 - 598 - 182
			V-20	**Optimization Methods**	552 - 687 - 575 - 611 - 832 - 482 - 45
			V-21	**Signal Processing**	697 - 367 - 371 - 759 - 661 - 285
			V-22	**Robotics**	868 - 378 - 439 - 700 - 209 - 284 - 692 - 488
			V-23	**Intelligent Control**	625 - 490 - 874 - 131 - 354 - 548 - 850 - 669
			V-24	**Control Applications**	471 - 682 - 508 - 848 - 186 - 486 - 319 - 806
			V-25	**Neural and Intelligent Systems (Part 2)**	194 - 668 - 495 - 863 - 533 - 714 - 136 - 387
			V-26	**Intelligent Communication Systems**	760 - 325 - 180 - 235 - 109 - 185 - 618 - 595
			V-27	**Control and Optimization Methods**	312 - 141 - 198 - 645 -738 -517 - 151 - 513
			V-28	**Optimization & Operational Research**	309 - 810 - 567 - 873 - 310 - 390 - 532

Papers ID/Sessions & Sessions chairs

SESSION P-01: Artificial Intelligence Systems SESSION CHAIRS: Vanessa Alvear & Sina Shaffiee Haghshenas		
Paper ID	**Title**	**Authors**
406	Learning Faster without Deeper Networks: A*-Inspired Batch Selection for Efficient CNN Training	Anxhelo Shehu*, Enes Stastoli, Arben Cela (Albania)
785	Spatial Information and Metadata Generation in Aerial Robotics with Vision-Language Models	Elena Wachtler*, Antonella Barisic, Tamara Petrovic, Stjepan Bogdan (Croatia)
814	TUNIPROD: An Optimized ProdLDA-Based Multi-Stage Framework for Cross-Lingual Topic Modeling of Code-Switched Public Discourse	Azer Mahjoubi*, Samawel Jaballi, Mounir Zrigui (Tunisia)
456	Context-Aware Gesture Interpretation for Semi-Autonomous Robot Control: A Step towards a Gesture Language for Robots	Ana Carolina Estrela, Tatiana Ribeiro Oliveira, Marco Simões, José Grimaldo da Silva Filho* (Brazil)
581	An Empirical Study on Curriculum Learning for Reinforcement Learning-based Biomechanical Arm Control	Asmae Ouhssain*, Mohamed-Harith Ibrahim, Sébastien Harispe, Denis Mottet, Joseph Diab, Jacky Montmain (France)
301	Development of Fuel Consumption and CO2 Emission Prediction Models Based on Driving Behavior Analysis Using GA-Optimized Curve Fitting	Sami Shaffiee Haghshenas*, Sina Shaffiee Haghshenas, Giuseppe Guido, Vittorio Astarita, Maria Smyriliou (Italy))

SESSION P-02: Intelligent Systems and AI Applications SESSION CHAIRS: Ugonna Oleh & Adolfo Perrusquia		
Paper ID	**Title**	**Authors**
855	A Knowledge Distillation Framework for Lightweight Brain Tumor Classification Using Transfer Learning and Explainable AI	Saeed M. Alshahrani*, Reem Alshahrani (Saudi Arabia)
75	On the Fragility of State-Space Augmentation in Diffusion-Based Robot Imitation Learning	Thomas Prosser, Plastropoulos Angelos, Adolfo Perrusquía* (United Kingdom)
415	Spatio-Temporal Graph-Based Pedestrian Trajectory Prediction with Environmental Context Integration and Constraint Learning	Yuka Takahara, Yuka Kato* (Japan)
444	An Urban Dashboard Supporting Situation Awareness for City Branding	Giuseppe D'Aniello*, Lidia Fotia, Matteo Gaeta, Alessandro Polverino (Italy)
43	Risk-Constrained Hierarchical Reinforcement Learning for Safe Decision-Making and Control in Autonomous Driving	Jhan-Yu Liao, Chien-Wen Sun, Yu-Chen Lin*, Ting-Jia Yeh (Taiwan)
523	Wildfire Contention and Suppression Using Drones: A Multi-Agent Deep Reinforcement Learning Approach	Maxime Collignon, Adolfo Perrusquía*, Antonios Tsourdos, Weisi Guo (United Kingdom)

SESSION P-03: Learning Systems in Engineering SESSION CHAIRS: Edison Pignaton De Freitas & Klaas Völtzer		
Paper ID	**Title**	**Authors**
249	Efficient Visual Anomaly Detection at the Edge: Enabling Real-Time Industrial Inspection on Resource-Constrained Devices	Arianna Stropeni, Fabrizio Genilotti, Francesco Borsatti, Manuel Barusco, Davide Dalle Pezze*, Gian Antonio Susto (Italy)
453	Data-Driven Iterative Learning Control Design Using the Repetitive Process Setting	Robert Maniarski*, Wojciech Paszke, Eric Rogers (Poland)
546	A Learning-Enhanced Set-Membership Estimator with Zonotopic Guarantees	Rahma Bengamra*, Soheib Fergani, Carine Jauberthie (France)
127	Closed-Loop Proportional-Integral Control of Physiological Systems	Rita Granata*, Luisa Erzingher, Michela Russo, Carlo Cosentino, Francesco Amato, Maria Romano, Alfonso Maria Ponsiglione (Italy)

402	DPML: Derivative-Based EEG Preprocessing for Enhanced Epileptic Seizure Detection Using Machine Learning	Ines Bouzouita*, Zayneb Brari, Safya Belghith (Tunisia)
240	3D Deep Reinforcement Learning Based UAV Trajectory Planning in Dynamic and Partially Observable Environments	Eduardo Machado Wullner, Arthur von Groll dos Santos, Marcos Rodrigues Vizzotto, Carlos Eduardo Pereira, Mauro Tropea, Edison Pignaton de Freitas* (Brazil)

SESSION P-04: Nonlinear Control

SESSION CHAIRS: Adam Piłat & Daniela Iacoviello

Paper ID	Title	Authors
293	Robust Nonlinear Cascade Control Strategy for Permanent Magnet Synchronous Motor Drives	Boualem Salhi* (Algeria)
176	Observer Design for Allen-Cahn Reaction-Diffusion Systems	Lorinc Marton*, Áron Fehér, Alex Csillag (Romania)
555	Adaptive Covariance Tuning for Nonlinear Disturbance Force Estimation in Tethered Aerial Vehicles	Abdelateef Negmelden, Nacim Meslem*, Jonathan Dumon (France)
678	Quaternion-based I&I Robust Adaptive SMC for Multirotor UAVs	Jonatan Uziel Alvarez Muñoz*, Juan Antonio Escareno Castro, Johvany Gustave, Ouiddad Labbani Igbida (France)
177	An Hybrid Continuous-Discrete Nonlinear Observer for Real-Time SOC Estimation for Supercapacitor	Imane Belghazi, Eric Magarotto*, Tarek Ahmed-Ali, Philippe Dorleans, Madjid Haddad (France)
458	Data-Driven Hybrid Framework for Dynamic System Control	Tanmay Wankhede*, Sunny Kumar, Saish Pakhare, Sudhir Bhil (India)

SESSION P-05: Data Science and Applications

SESSION CHAIRS: Philipp Müller & Marisol Vázquez Tzompantzi

Paper ID	Title	Authors
245	HajjFlow: A Cloud-Based Real-Time Crowd Analytics Platform Using NoSQL Databases, Business Intelligence, and Distributed Cloud Computing	Afef Gueidi* (Saudi Arabia)
348	Semantic Person Search Via Language-Driven Descriptions Generated from CCTV Cameras	Diana Souza, El Rekik, Rainer Müller, José Grimaldo da Silva Filho* (Brazil)
228	Hybrid 1D-CNN and CKF Model for Battery State of Charge Estimation in Electric Vehicles	Nacira Boudraa*, Hajer Salem, Houari Toubakh, Elhadi Gasmi, Noureddine Zerhouni, Mohamed Redouane Kafi (Algeria)
694	Time-Frequency Analysis of Sympathetic Skin Response Signals for Detection of Peripheral Neuropathy Using Machine Learning Techniques	Dhouibi Nourhene, Jaouher Ben Ali*, Jacques Grapperon, Jean Marc Ginoux (Tunisia)
751	Toward a Unified Multimodal Framework for Chest X-Ray Analysis: A Hybrid Convolutional--State Space Approach	Adjia Ndeye Penda Dieng*, Samawel Jaballi, Henri Nicolas, Mounir Zrigui (Tunisia)
715	Portfolio Optimization under Varying Market Regimes: A Comparative Study Using ANN Forecasts on MAI Stocks	Pema Sonam Yangchen, Rujira Chaysiri* (Thailand)

SESSION P-06: Intelligent Systems

SESSION CHAIRS: Tapio Heikkilä & Demetrio Alessandro Trunfio

Paper ID	Title	Authors
326	Learning State Representations of Articulated Robot Arms from Visual Observations	Yunfu Deng , Daniel Nikovski* (USA)
404	Seamless Indoor Navigation: Leveraging AI Computer Vision and GPS Spoofing for UGV Autonomy	Stelios Ioannou*, Marios Raspopoulos, Shilin Peng (Cyprus)
44	A Hierarchical Reinforcement Learning Framework with Spatial-Temporal Graph Attention for Autonomous Driving Decision-Making and Control	Wen-Te Hsiao, Yu-Chen Lin*, Wen-Hui Chen, Zhi-Cheng Yang (Taiwan)

557	A Kernel-Centric AI Architecture for Emergency Triage: From Healthcare Knowledge Management to Simulated Dispatch Scenarios	Demetrio Alessandro Trunfio* (Italy)
57	Control-Aware Nonlinear Modeling and LLM-Enhanced Decision Support for Coupled Flood–Epidemic Response under Multi-Criteria Trade-Offs	Raymond HOUÉ NGOUNA*, Daniel Cobbinah, John Awuah Addor, Gabriel Guilsou KOLAYE, Bernard Archimède (France)
778	Towards Agile Robotics – Learning and Assigning Tasks	Tapio Heikkilä, Niko Känsäkoski, Martin Josef Kollingbaum (Finland)

SESSION P-07: Fault Detection

SESSION CHAIRS: Dominik Łuczak & Lorinc Marton

Paper ID	Title	Authors
570	Detection and Diagnosis in Photovoltaic Panels Using Artificial Intelligence Techniques Based on Random Forest and LSTM Neural Networks	Valentina Olteanu*, Ioana Fagarasan, Marius-Alexandru Dobrea (Romania)
351	KNNIFE: A Data-Informed Feature Importance for Isolation Forest and Its Extensions	Riccardo De Vidi, Francesco Borsatti*, Valentina Zaccaria, Davide Sartor, Gian Antonio Susto (Italy)
121	Joint Optimization of Temporal Windows and Hidden Neurons for Residual-Based Fault Detection	Eduardo Jose Apaza Alvarez*, Hiroshi Kawakami (Japan)
710	The Extended Nullspace-Based Fault Detection and Isolation Filter	Sophia Schorer*, Manuel Pusch, Daniel Ossmann (Germany)
416	Physics-Informed Feature Generation for Fault Classification in Industrial Drive Systems	Rohan Arun Nawale*, Martin Grotjahn, Timo v. Marcard, Charlotte Tkany, Moritz Fehsenfeld (Germany)
426	Design of Stealthy Attacks for Cyber-Physical Systems	Luca Antonio Luigi Barbieri*, Giancarlo Fortino, Giuseppe Franze' (Italy)

SESSION P-08: Applied Artificial Intelligence

SESSION CHAIRS: Davis Loose & Giuseppe Pernagallo

Paper ID	Title	Authors
191	Semantic Watermark for Detecting Thesis Title Reuse in Academic Repositories	Marisol Vázquez Tzompantzi*, Karen Ailed Neri Espinoza, Francisco Gutierrez Galicia, Ricardo Jesus Sanchez Quintal (Mexico)
269	Sentinel-2-Based Crop Classification in Rayong Province, Thailand: A Regional Remote Sensing Approach	Punyanuch Kajornchaikitti*, Karun Tancharoen, Noppharoot Bavornkijsutee, Totsanat Rattanakaew, Boonyarit Changaival (Thailand)
403	An Integrative Radiomic Framework As Virtual Biopsy for Non-Invasive Diagnosis of Ovarian Cancer	Miruna-Cristina Andone, Dan Popescu*, Loretta Ichim (Romania)
470	AI-Driven Patient Profiling for Clinical Decision Support in Dental Treatment under General Anesthesia	Anita Petreska*, Julijana Nikolovska, Efka Zabokova Bilbilova, Blagoj Ristevski, Nikola Rendevski (Serbia)
166	Prediction of Remaining Useful Life of Turbofan through a Similarity Approach: the CMAPSS Dataset Case Study	Francesco Maione*, Paolo Lino, Ottar Osen, Erlend M. Coates, Giuseppe Giannino, Guido Maione (Italy)
530	The Cartesian Paradox: Thinking AI and Non-Thinking Humans?	Giuseppe Pernagallo* (Italy)

SESSION P-09: Robotics Systems

SESSION CHAIRS: Lounis Adouane & Sergio Leggieri

Paper ID	Title	Authors
805	Constraint-Aware Null-Space Inverse Kinematics for a 9-DOF Mobile Manipulator	Tadele Belay Tuli*, Martin Manns (Germany)
469	Experimental Trajectory Tracking Control of Mecanum-Wheeled UGV Using Linear Angle-To-Gain (LA-G), Modified LA-G, and Linear Quadratic Regulator (LQR)	Izzeldeen Almanasra*, Tamir Shaqarin (Jordan)

640	Validation of LQR control with integral action for a suspended four-cable-driven parallel robot	Tadjou-Junor Yanis Tadjouddine*, Atal Anil Kumar, Jean-François Olivier Antoine, Thibaut Raharijaona (France)
128	A Reinforcement Learning and Behavior Cloning Based Decision-Making System for Autonomous Driving and Real-Vehicle Deployment	Xin Xing*, Jannes Bikker, Sebastian Ohl (Germany)
831	Bio-Inspired PIDP Parameters Learning from Expert Drivers for Autonomous Vehicle Navigation in Highly Dynamic Roundabouts	Guillaume Poidatz*, Lounis Adouane (Germany)
464	Closed-Chain Hand Exoskeleton Digital Twin in ROS 2 with Constraint-Consistent Reduced Dynamics	Amelia Gioscia, Marcello Bari, Paolo Lino, Stefano Mazzoleni, Marina Cosmo* (Italy)

SESSION P-10: Applied Optimization

SESSION CHAIRS: Vadim Azhmyakov & Issam Nouaouri

Paper ID	Title	Authors
334	Centralization vs Distribution Decision-Making Organizations During Crisis Situations	Jlassi Nouha*, Guillaume Bouleux, Thierry Moyaux, Yacine Ouzrout (France)
583	A Probabilistic Upstream Layer for Logistics Network Resilience Modeling under Severe Disruptions	Naima Rahiel*, Sid-Ali Addouche, El Mouloudi Dafaoui, Abderrahman El Mhamedi (France)
272	Job Shop Scheduling with FIFO Constraints: A Comparative Study of MILP and Constraint Programming	Randa Ouchene*, Djamal Rebaine, Pierre Baptiste (Canada)
330	Parametric Differentiable Flow Modeling for Fluid Production Optimization under Flow Assurance Constraints	Luis Kin Miyatake*, Eduardo Camponogara, Alexey Pavlov (Norway)
283	A General Formulation for the Teacher Assignment Problem: Computational Analysis Over a Real-World Dataset	Moa Johannesson, Lina Brink, Alvin Combrink, Sabino Francesco Roselli*, Martin Fabian (Sweden)
504	Optimizing AHP for Autonomous Vehicle Risk Evaluation in Mixed Traffic	Maria Asuncion Del Cacho Estil-les*, Agostino Marcello Mangini, Maria Pia Fanti (Italy)

SESSION P-11: Applied Control Systems

SESSION CHAIRS: Adam Piłat & Daniela Iacoviello

Paper ID	Title	Authors
78	Standard Conformant Prompting (SCP): A Reproducible Framework for Compiler-Ready PLC Code Generation with Large Language Models	Ketut Adnyana*, Andreas Schwung (Germany)
79	From Chain-Of-Note to Explainable Cognitive Prompting: Reproducible Multi-Layer Validation for Auditable LLM-Assisted PLC Programming	Ketut Adnyana*, Andreas Schwung (Germany)
172	Study of Grid-Connected Inverter under Modified PWM Control for EMI Mitigation in Photovoltaic Application	Sana Kraiem*, Sassia Hedia, Jalel Ben Hadj Slama, Homere Nkwawo, Tarek Ahmed-Ali (France)
342	A Roll-Aware Vehicle Stability Control Algorithm for Heavy Commercial Road Vehicles	Shravan Devadiga, Indra Mandal, Pavel Gaurkar, Mahesh Shridhare, Sriram Sivaram, Shankar Subramanian* (India)
343	Deep-Learning-Assisted Dual-Mode Predictive Yaw Stability Control for Heavy Road Vehicles	Indra Mandal, Shravan Devadiga, Pavel Gaurkar, Mahesh Shridhare, Sriram Sivaram, Shankar Subramanian* (India)
104	An Integrator Backstepping-Based Algorithm for Spacecraft's Effective Surface Tracking	Alessio Bocci*, Jose Corona, Raymond Kristiansen (Norway)

SESSION P-12: Transport Optimization

SESSION CHAIRS: Sina Shaffiee Haghshenas & Michele Roccotelli

Paper ID	Title	Authors
489	Prioritizing Urban Policy Measures for Sustainable Electric Vehicle Using Fuzzy DAHP	Raffaele Zinno, Sina Shaffiee Haghshenas*, Sami Shaffiee Haghshenas, Giuseppe Guido, Gregorio Cappuccino (Italy)

375	Synchronized Multi-Drone Delivery Via Public Transport Mobile Depots: A Dual-Phase Hybrid MILP and RL Framework	Mohamed Ali Hajjem*, Nathalie Sauer, Sadok Turki (France)
547	Greedy-Based Hybrid Metaheuristics for the Sustainable Electric Vehicle Routing Problem	Mohamed Amine Mourou*, Mariem Belhor, Nadia Hamani (France)
381	An Optimization Framework for the Selection of Battery and Fuel Cell Electric Trucks in Long-Haul Freight Transport	Angelina Krendeleva, Michele Roccotelli*, Agostino Marcello Mangini, Maria Pia Fanti (Italy)
685	Circular Supply Chains in the Textile and Apparel Sector: An Overview of Most Promising Practices	Oumaima Gadi, Tasseda Boukherroub* (Canada)

SESSION P-13: Control Applications

SESSION CHAIRS: Hicham Henna & David Henry

Paper ID	Title	Authors
347	An Optimal Control Approach to Anesthesia Administration	Paolo Di Giamberardino, Daniela Iacoviello* (Italy)
145	PLC Programming Requirement Parsing Method Based on Sequential Function Chart	Zhijun Feng, Lejun Fu, Hao Cui, Xiaoqing Tang, Feng Yu, Yukai Fu* (China)
587	Evaluating Liquid Neural Networks on a Behavioral Cloning Quadrotor Control Problem	Tudor-Mihai Avarvarei*, Nicolas Drougard, Aurelien Plyer, Mario Cassaro (France)
701	Output Feedback Control for Main Spool Displacement of Two Stage Hydraulic Valves Driven by Proportional Pilot Valves	Xinhao Ji*, Haibo Xie, Chengzhen Wang, Yuexing Wang (China)
204	Efficient Orthonormal Function-Based MPC for PMSM Drives in Domestic Appliances	Eleonora Brasili*, Luigi Fagnano, Gianluca Ippoliti, Giuseppe Orlando (Italy)
304	A Switched Structured-H∞ /IQC Closed-Loop for Adult T1DM Patients	David Henry*, Jérôme Cieslak, David Gucik-Derigny, Bogdan Nicolescu-Catargi, Pablo Santiago Rivadeneira, Alejandra Ferreira de Loza, Hector Rios (France)

SESSION P-14 Manufacturing System Control

SESSION CHAIRS: Ketut Adnyana & Imadeddine Oubrahim

Paper ID	Title	Authors
792	Energy Signature and Production Process Information	Giuseppe Fanizza*, Alessandro Massaro, Giuseppe Starace (Italy)
265	A Security-Aware and Environmentally Robust Hybrid YOLO-E–YOLOv12 Framework for UAV-Based Helmet Detection and Color Classification	Abdul Razaque*, Gulnara Bektemyssova, Keresh Arman, Yergazy Yersaiyn, Shaikemelev Galymzhan (Kazakhstan)
23	A Reference Architecture for Closed-Loop Predictive Quality Control under Limited Process Observability: A Centrifugal Casting Case Study	Peter Josef Haupts*, Mohieddine Jelali (Germany)
580	The Design and Development of a Logarithmic-Shaped Soft Gripper	Halil Hulusi Hoşgör*, Zafer Bingul (Turkey)
41	Deployment of a Multi-Objective RSM-ANFIS Approach for FFF Process Optimization Using Thin-Film PLA Specimens	Ezekiel Yorke*, Boppana V. Chowdary (Trinidad and Tobago)
167	A Vendor-Independent Distributed Supervisory Control Architecture for Vision-Based and SME-Oriented Robotic Sorting	Davide Galli*, Chiara Nezzi, Dylan Morelato, Matteo De Marchi (Italy)

SESSION P-15: Hybrid and Discrete Event Systems

SESSION CHAIRS: Martijn Goorden & Francesco Basile

Paper ID	Title	Authors
707	Diagnosability Verification in Petri Nets under Unknown Initial Marking	Yushan Li, Shaopeng Hu*, Zhiwu Li (China)
804	Detecting Unforeseen Behaviors During Health Monitoring of Hybrid Systems	Leonie Hatte*, Rayen Hamadi, Elodie Chanthery, Pauline Ribot (France)

118	Decomposition-Based Supervisory Control Applied to an Industrial Waterway Lock	Martijn Goorden, Michel Reniers* (Netherlands)
516	Dynamic Secret Protection in Discrete Event Systems Via Reinforcement Learning	Jie Ren, Ruotian Liu, Agostino Marcello Mangini, Maria Pia Fanti* (Italy)
184	New Sampled Data Observer for Class of Nonlinear Hybrid Systems	Fatima Bassot*, Zianide Ziani Salim, Vincent Van Assche, Tarek Ahmed Ali, Eric Magarotto (Algeria)
332	A Model-Based Approach to the Optimization of an Emergency Department	Francesco Basile, Enrica Calce*, Maria Romano, Francesco Amato, Rita Granata, Alfonso Maria Ponsiglione (Italy)
421	A Methodological Framework for Event Signal Reconstruction in Net Condition/Event Systems	Zhenglong Han, Jiafeng Zhang*, Kamel Barkaoui (China)

SESSION P-16: Forecasting Methods
SESSION CHAIRS: Rohan Arun Nawale & Visar Emerllahu

Paper ID	Title	Authors
201	Recurrent Actor-Critic Navigation of Unmanned Aerial Vehicles in Arbitrary-Shape Obstacle-Dense Environments Via Temporally-Augmented Observation	Gabriele Gemignani*, Adolfo Perrusquía, Lorenzo Pollini, Antonios Tsourdos (Italy)
259	Adaptive Sliding Mode Control for FOPDT Systems Via Online Gradient Descent Tuning	Juan Villacres*, Michelle Viscaino, Danilo Chavez, Oscar Camacho (Ecuador)
370	Active-Inference-Based Evidence Collection Method for Disinformation Verification	Nichika Maeno*, Shin'ichi Arakawa, Masayuki Murata, Daichi Kominami (Japan)
158	From Static Models to Control-Oriented Digital Twins: Towards Virtual Learning Factories for Manufacturing Innovation	Chiara Nezzi*, Caroline Colsman, Jan-Philipp Rammo, Marc Wegmann, Erwin Rauch, Christina Reuter (Italy)
762	Annotation Quality Reward: A Closed-Loop RL Architecture for Autonomous Coffee Plantation Inspection and Synthetic Dataset Generation	Jose Henrique Rocha da Silva* (Brazil)
520	MGFI: Multi-Graph Fusion and Future Interaction-Aware Network for Heterogeneous Trajectory Prediction	Changxun Zhu, Shibei Xue* (China)

SESSION P-17: Sp Session - Stochastic Systems, Control, Optimization, and Applications
SESSION CHAIRS: Bozenna Pasik-Duncan & George Yin

Paper ID	Title	Authors
129	Agentic World Models	Tembine Hamidou*, Daryl Noupa Yongueng (Canada)
130	The Price of Oblivion: On the Non-Validity of Classical Hamilton-Jacobi-Bellman in Mean-Field-Type Control	Tembine Hamidou*, Julian Barreiro-Gomez, Tyrone E. Duncan, Bozenna Pasik-Duncan (Canada)
123 v	Individual Price of Strategic Myopia in Mean-Field-Type Games	Tembine Hamidou, Julian Barreiro-Gomez* (United Arab Emirates)
862	The Power, Beauty, and Excitement of the Interdisciplinary Nature of Stochastic Systems: Challenges and Opportunities in STEM Education	Dominique Duncan*, Bozenna Pasik-Duncan, Ramalatha Marimuthu (USA)
288	Stochastic prediction for heavy-tailed processes using extreme gradient boosting	Szymczak Jan*, Pawel Dariusz Domansk (Poland)
175	On the Incremental Stability of PIDE-Based Stochastic Gene Regulatory Networks under Switching Inducer Profiles	Christian Fernández Pérez*, Manuel Pájaro, Gábor Szederkényi, Irene Otero-Muras (Spain)

SESSION P-18: System Identification with Applications
SESSION CHAIRS: Lisbel Barzaga Martell & Michel Basset

Paper ID	Title	Authors
599	Two-Stage Input Signal Handling in Symbolic Regression	Isabella Rudengren*, Torbjorn Wigren, Niklas Wahlström (Sweden)
671	Long-Term Experimental Investigation of Active Magnetic Levitation in Damped Oscillatory Mode	Adam Krzysztof Pilat* (Poland)

730	Efficient Linearization for Explicit Multilinear Models in Tensor Train Representation	Jithin Cherian*, Gerwald Lichtenberg (Germany)
529	Fourth-Order Automatic Differentiation for Robotic Kinematics Via Nilpotent Hypercomplex Algebra	Daniel Condurache*, Mihail Cojocari (Romania)
466	Identification of Assistance-Dependent Neuromuscular Dynamics in Robot-Assisted Upper-Limb Rehabilitation Tasks	Amelia Gioscia*, Stefano Mazzoleni, David Naso, Paolo Lino (Italy)
559	Influence of Temperature Dependent Vector Population Growth to the Spread Characteristics of Arbovirus Infections	Giovanni Pio Cuoco, Nicola Di Francesco, Paolo Di Giamberardino, Daniela Iacoviello* (Italy)

SESSION P-19: Sp Session - Artificial Intelligence and Optimization Methods for Smart Healthcare Systems

SESSION CHAIRS: Maria Pia Fanti, Xiaolan Xie, Agostino M. Mangini, & Michele Roccotelli

Paper ID	Title	Authors
780 v	Ovarian Cancer Prediction: A Stacking Ensemble Approach	Marilena Marmora, Michele Roccotelli*, Wasim Ali, Maria Pia Fanti, Luis Carlos Félix-Herrán (Italy)
174 v	Heart Failure Risk Stratification in an IoT Healthcare Platform Using Ensemble Learning	Pietro Cassieri*, Aiman Faiz, Claudio Pascarelli, Gianvito Mitrano, Gianluca Fimiani, Garofano Marina, Mariangela Lazoi, Claudio Passino, Alessia Bramanti, Giuseppe Scanniello (Italy)
153	A Hybrid Generative AI and Optimization Approach for Resilient Emergency Department Layouts	Othman Manae*, Khalil Bouramtane, Said Kharraja, Jamal Riffi, Omar El Beqqali (France)
543	Aortic Aneurysm Identification Using Artificial Intelligence	Elena Di Bari, Michele Roccotelli*, Wasim Ali, Maria Pia Fanti (Italy)
446	Risk-Aware Multi-Horizon Glucose Prediction for Type 2 Diabetes Using Temporal Attention and Conformal Prediction	Giada Lops*, Vito Andrea Racanelli, Luca De Cicco, Saverio Mascolo (Italy)
349	Managing Heterogeneous Multi-Class Queues in Real Time: A Comparison of Queueing Rules, Rolling-Horizon Optimization, and Reinforcement Learning	Loïs Trassoudaine*, Mohamed-Harith Ibrahim, Oussama Ben-Ammar, Sébastien Harispe (France)

SESSION P-20: Neural Networks with Applications

SESSION CHAIRS: Ugonna Oleh & Bengisu Yucel

Paper ID	Title	Authors
100	Evaluating Input Data Structures for CNN-Based Assembly Action Recognition Using Projected Distance Features	Cosimo Patruno*, Vanessa Alvear, Annaclaudia Bono, Grazia Cicirelli (Italy)
138	First vs. Second-Order Optimization in Shallow Neural Networks: A Systematic Study across Problem Landscapes	Sezil Ağırbaş*, Mehmet Önder Efe (Turkey)
363	XAI for Transformer-Based Fall Detection Using Skeleton Time-Series Data Analysis	Annaclaudia Bono*, Cosimo Patruno, Vito Renò, Grazia Cicirelli, Cataldo Guaragnella (Italy)
803	Action Descriptions As Semantic Priors for 3D Human Pose Estimation	Andrei Mihalea*, Mihai Nan, Irina Mocanu (Romania)
463	Synthetic-To-Authentic Data Mixing for Face Recognition: Impact of Backbone Depth and Loss Functions	Mehdi Ayeche*, Marouane Ben Haj Ayech, Iotfi chaouech, Ridha Ghayoula, Jaouhar Fattahi, Lassaad Latrach (Tunisia)
316	Attention-Based Neural Networks for Event Cameras Visual-Inertial Odometry on Edge Devices	Nunzio Barone*, Danilo Pau, Saverio Mascolo, Luca De Cicco (Italy)

SESSION P-21: Robotics Systems

SESSION CHAIRS: Francesco Pierri & Tadele Belay Tuli

Paper ID	Title	Authors
81	Optimized Model-Free Extremum Seeking Control for Morphing Rotor Systems	Sabine Wisbacher*,Daniel Ossmann (Germany)
447	Robust Performance Analysis of Leader-Follower Systems Using Integral Quadratic Constraints	Tobias Augustin*, Felix Biertumpfel, Daniel Ossmann (Germany)

374	Experiments of Visual Servoing in Presence of Humans Based on Task Priority	Giovanni Francesco Comune, Luca Bianco, Gianmarco Di Puorto*, Marco Costanzo, Ciro Natale (Italy)
119	Applying Reinforcement Learning to Dissolved Oxygen Control in a Fed-Batch Fermentation Using a Digital Twin	Rasmus Høst Villadsen, K. V. Gernaey, Beichen Zhao, Wei Yu*, Brent Young (New Zealand)
507	Augmented Reality Platform for Collaborative Human-Robot Object Transportation Tasks	Graziano Carriero*, Monica Sileo, Francesco Pierri, Fabrizio Caccavale (Italy)
525	A Minimum-Energy Control Approach for Redundant Mobile Manipulators in Physical Human-Robot Interaction Applications	Davide Tebaldi*, Niccolò Paradisi, Fabio Pini, Luigi Biagiotti (Italy)

SESSION P-22: Fault Tolerant Control

SESSION CHAIRS: David Henry & Antonio Loría

Paper ID	Title	Authors
741	Algebraic Time-Delay Control for Quadrotor Attitude Tracking in the Presence of External Disturbances	Marko Pranjic*, Josip Kasac, Denis Kotarski (Croatia)
25	Hierarchical Satellite Attitude Control Via Reinforcement Learning-Guided Model Predictive Control	Hicham Henna*, Houari Toubakh, Aïssa Boutte, Mohamed Redouane Kafi, Moamar Sayed-Mouchaweh (Algeria)
331	Minimizing Dwell-Time Conservatism in Supervisory Fault-Tolerant Control: An LMI-Based Approach	Mattéo Gouzien*, Sergio Waitman, David Henry (France)
150	Adaptive Control of Nonlinear Systems with Input Loss of Effectiveness, Saturation, and Friction	Daniela J. Lopez-Araujo*, Antonio Loria, Nohemi Alvarez Jarquin, Josefa Morales Morales, Jesus Sosa Herrera (Mexico)
154	Digital Twin-Enabled Hybrid HVAC Control for Enhanced Energy Efficiency – HESTIA Concept	Mihail-Bogdan Carutasiu*, Teodor Lupoiu, Horia Necula, Vlad Florin Paraianu (Romania)
465	Actuator Fault Detection under Active Disturbance Rejection Control for Steer-By-Wire Systems	Zoltán Téczely*, Barnabás Finta (Hungary)

SESSION P-23: Optimal and Stochastic Control

SESSION CHAIRS: Hamidou Tembine & Vadim Azhmyakov

Paper ID	Title	Authors
793	Autonomous Navigation of a Mobile Robot in a Known Map with Dynamic Obstacles	Furkan Sabri Dipi* , Ismail Uyanik (Turkey)
111	Mean-Field-Type Learning Is Exactly What You Need	Daryl Noupa Yongueng*, Mamadou Lamine Doumbia, Tembine Hamidou (Canada)
82	ANFIS-Based State Observer for a Feedback Inverted Pendulum: Experimental Validation	Javiera Paz Miranda Ordenes, Lisbel Bárzaga Martell*, Norelys Aguila-Camacho, Guillermo Gonzalez Romero (Chile)
362	Inventory Control with a Fixed Ordering Cost and Demand Learning	Alain Bensoussan, Abinash Khandelwal, Viswanath Ramakrishna, Suresh P. Sethi* (USA)
171	Probabilistic Energy Balance Forecasting in Rural Grids Using Conformal Prediction	César Felipe Lozano-Sánchez de la Morena, Santos Carlos*, Jorge Pérez-Aracil, Fco Javier Rodríguez, Silvia Jiménez-Fernández, Alejandro Martín-Zamora, Reinier Herrera-Casanova, Arturo Conde (Spain)

SESSION P-24: Scheduling in Engineering

SESSION CHAIRS: Martijn Goorden & Djamal Rebaine

Paper ID	Title	Authors
203	Human-Aware Task Scheduling in Human–Robot Collaboration Via Deep Reinforcement Learning	Francesco Boscolo Meneguolo*, Alberto Dalla Libera, Gian Antonio Susto (Italy)
445	Unrelated Parallel Machine Scheduling under Non-Resumable Maintenance: A Surrogate-Assisted Genetic Algorithm	Fatima Iken*, Abdennour Azerine, Mahmoud Golabi, Lhassane Idoumghar (France)
610	A Multi-Objective Planning Approach for Deconstruction Projects	Antonin Paoli*, Tasseda Boukherroub, Jean-Francois Audy, Taha Arbaoui, Julien Fondrevelle (France)

46	Resilient and Cost-Efficient Job Scheduling for Heterogeneous Data Centers: A Soft-Constrained Approach	Hengwen Xu , Hao Yin* (China)
414	Hybrid Machine Learning/constraint Programming Method for Proactive and Reactive Scheduling Applied to PCB Assembly	Youssef Karouma*, Christian Artigues, Duong Le Toan, Houssem-eddine Gharbi, Romain Guillaume (France)
409	A Constraint Programming Model for Job-Shop Scheduling with Cooperative Transportation Resources	Amine Oussama*, Jean-Philippe Gayon, Philippe Lacomme (France)

SESSION P-25: Production and Manufacturing Engineering

SESSION CHAIRS: Sara Séguin & Sana Belmokhtar-Berraf

Paper ID	Title	Authors
398	A Comprehensive Framework of Circular Economy Practices for the Manufacturing Sector	Imadeddine Oubrahim*, Nathalie Sauer (France)
639	Agents-Based Simulation and BLV Diffusion Coupling Approach for Nurses Interruptions Effect Behavior in an Emergency Department	Yenny Paredes-Astudillo*, Guillaume Bouleux (France)
297	Hardware-Driven Debt Accumulation: Classification and Early Indicators within Cyber-Physical Production Systems	Lucas Romier,Birgit Vogel-Heuser,Luis Steuter* (Germany)
505	Multi-stage scheduling for Sustainable Manufacturing: Insights from a Chinese Medical Device Case Study	Lingxin Wang, Rosa Abbou* (France)
142	An Improved Approximation of Metal Accumulation in Electric Arc Furnaces for Ferrosilicon Production	Sara Séguin*, Glidden Pierre-Yves, Pascal Nadeau (Canada)
749	Extending OEE to OEE–OS: Integrating Obsolescence and Shortages into Equipment Performance Measurement	Mariem Besbes*, Marc Zolghadri, Claude Baron (France)

SESSION P-26: Sensors and Instrumentation

SESSION CHAIRS: Ádám Béla Horváth & Bruno Damas

Paper ID	Title	Authors
112	Machine Learning Soft Sensor for Predicting the Product Quality of a Hydrogen Reduction Furnace	Tommi Mäkelä, Jari Luomala, Leevi Lind*, Ismo Hakala (Finland)
818	Vision-Based Autonomous Surface Sampling in Healthcare Robotics: An Integrated Perception–Control Framework with Experimental Validation	Francesco Pio Briuolo*, Alberto Maria Di Giacinto, Joseph Lovecchio, Oreste Riccardo Natale, Leandro Pecchia, Carmen Del Vecchio (Italy)
473	A Modular Loosely-Coupled Multi-Sensor Localization Framework for Low-Cost UGVs in GNSS-Denied Environments	Frederico Alves Rasinhas, Vítor Manuel Rodrigues Viegas, Bruno Damas* (Portugal)
817	A Portable Multi-Sensor Unit and Layered Kalman Filtering for State Estimation on Legged and Wheeled Mobile Robots	Eren Cem Goksuluk*, Ismail Uyanik, Burak Alp Inan (Turkey)
302	Sparse Sensing with Low Precision for Multi-Model System: An Information Theoretic Approach	Brijesh Kumar, Mani Bhushan (India)
796	Autonomous Navigation Using Bio-Inspired Soft Tactile Sensors for Close-Proximity Perception	Emre Ozturk*, Ismail Uyanik, Solen Kumbay Yildiz (Turkey)

SESSION P-27: Diagnosis Methods

SESSION CHAIRS: Dominik Łuczak & Bahram Shafai

Paper ID	Title	Authors
295	A Hybrid Machine Learning Framework for AE-Based Anomaly Detection in Pressure Vessels	Yassine Traidi, Lala Herimanjaka Rajaoarisoa*, Salim Chaki, Daniel Njeugna, Fabrice Laurent (France)
753	Diagnosis of ITSC Faults in Stator Windings of Controlled PMSM: Entropy-Based Feature Extraction and MLP Classifier	Younes Azzoug*, Moussa Boukhnifer, Remus Pusca (France)
790	Simulation-Generated Data for Fault Detection and Diagnosis in Mobile Robots	Abdalmotalib Alghoul, Alessandro Freddi*, Andrea Monteriù (Italy)

562	Experimental Verification of Open-Switch Fault Localization in a Six-Switch Three-Phase PMSM Drive Inverter	Dominik Luczak* (Poland)
836	Experimental Verification of Vibration-Based Unbalance Detection in a PMSM Drive Using a CNN-Based Classification Framework	Dominik Luczak*(Poland)

SESSION P-28: Sp Session - Advanced Technologies for Industry 5.0 and Healthcare Applications (Part 1)

SESSION CHAIRS: Nicola Epicoco, Alessandro Massaro, & Giuseppe Loseto

Paper ID	Title	Authors
221	Tree-Driven Optimization Inference Strategy for Highly Resource-Demanding Data Acquisition: Application to Chemical Sensors	Marino Pavone*, Roberto Alesii, Stefano Tennina, Giordano Pola (Italy)
289	AI-Assisted Electronic Digital Twin for Liquid Level Sensors under Hardware Trojan Attack: An Experimental Validation	Alessandro Massaro, Nicola Epicoco*, Francesco Giannuzzi, Giuseppe Loseto, Filippo Gramegna (Italy)
299	Modeling of CNT MOSFET Transistors Enabling Self-Healing and Healing Procedures	Alessandro Massaro*, Aimè Ekuakille (Italy)
321	Hybrid Systems for Post-Stroke Upper-Limb Rehabilitation: Current Trends and Future Perspectives	Walter Dibenedetto, Alessandro Massaro, Francesco Gaudio, Stefano Martinotti, Nicola Epicoco* (Italy)
382	Offline Opacity Enforcement and Online Mitigation Mechanism for Actuator-Enablement Attacks in Discrete Event Systems	Joao Antonio da Silva Melo, Valeria Bonagura*, Tiago Cruz, Paulo Simoes, Federica Pascucci, Graziana Cavone (Italy)
388	A Hardware-Software Framework for IoT Security Using Multi-Key Circuit Obfuscation	Alessandro Massaro, Nicola Epicoco, Giuseppe Loseto*, Filippo Gramegna, Carmelo Antonio Ardito (Italy)

SESSION P-29: Sp-Session - Emerging Technologies for Safety and Risk Mitigation in Industrial and Occupational Contexts

SESSION CHAIRS: Ernesto Del Prete, Simone Guarino, Maria Grazia Gnoni, & Roberto Nardone

Paper ID	Title	Authors
178 v	An Agentic LLM-Based Architecture for Automated Anomaly Detection and Adaptive Remediation	Paolo Palmiero*, Antonio Iannaccone, Daniele Granata, Roberto Nardone (Italy)
211 v	Resilient Privacy-Preserving Collaborative Predictive Maintenance through a Federated Multi-Layer Architecture	Jonah Giglio*, Giovanni Maria Cristiano, Salvatore D'Antonio (Italy)
339	Industrial Cyber Shield: Protecting Industrial Networks in the Age of Industry 4.0	Gabriele Peluzzi, Giorgia Mannarino, Bianca Mazzà, Stefano Perone, Ernesto Del Prete, Simone Guarino* (Italy)
356	Input-Complete Finite State Machines with Explicit Failure States: A Verification-Oriented Approach for ROPS Control Systems	Ernesto Del Prete*, Davide Gattamelata, Daniele Puri, Leonardo Vita, Francesco Failla, Fabio Pera (Italy)
368	Posture-Specific Spatial Calibration for Kinematic Model Optimization Based on Human Activity Recognition in Ergonomic Evaluations	Sergio Leggieri*, Darwin Caldwell, Christian Di Natali (Italy)
385	Design and Evaluation of a Novel Wearable Airbag for Mitigation of Falls from Height Injuries in the Construction Sector	Sergio Leggieri*, Christian Di Natali, Fabio Colombo, Daniele Ludovico, Carlo Canali, Antonios E. Gkikakis, Nicholas Cartocci, Fabio Pera, Maria Teresa Settino, Darwin Caldwell, Jesús Ortiz (Italy)

SESSION P-30: Multi-Objective Optimization

SESSION CHAIRS: Issam Nouaouri & Sara Séguin

Paper ID	Title	Authors
156	Unsupervised Fuzzy Multi-Objective Optimization for Complex Decision-Making Problems	Diyar Altinses, Sofiene Lassoued*, David Orlando Salazar Torres, Stefan Lier, Andreas Schwung (Germany)

133	Survivability-Oriented Kinodynamic Path Planning for F-16 Aircraft Over DEM-Based Terrain with Dynamic Threats	Bengisu YUCEL* , Mehmet Önder Efe (Turkey)
315	Toward Just-In-Time Production Scheduling Using Masked Actor-Critic Reinforcement Learning and Colored Timed Petri Nets	Sofiene Lassoued*, Diyar Altinses, Stefan Lier, Andreas Schwung (Germany)
663	Dynamic Optimization of Quay Crane Assignment and Scheduling in Container Terminals: A Strategy-Sensitive Event-Driven MILP Approach	Essowiyaou Kassankogno*, Sid Lamrous, Marie-Ange Manier, Yaogan Mensah (France)
430	A Hesitant Fuzzy SAW-MULTIMOORA Approach for ESG-Oriented Supplier Risk Ranking	Merve Güler*, Esin Mukul (Turkey)
229	Solving Multi-Manned Assembly Line Balancing under Resource and Capacity Constraints in the Biogas Industry	Mohieddine-El Hadi Terki-Hassaine*, Taha Arbaoui, Sylvain Touchard, Tao Wang (France)

SESSION P-31: AI and Intelligent Information Systems

SESSION CHAIRS: Giancarlo Fortino & Nhan Quy Nguyen

Paper ID	Title	Authors
605	Leakage-Resilient Diarization and Feature Extraction Framework for Robust Multimodal Mental Health Corpora	Ugonna Oleh*, Umair Talib, Muhammad Ali Alam, Roman Obermaisser (Germany)
615	Improving the Productivity of a Production Line through Explainable Artificial Intelligence for Data Analysis	Enzo Pelous*, Pierre David, Irene Gannaz, Abdourahim Sylla (France)
137	Improving Reproducibility in Ontology-Based Data Generation: A Framework and Case Study	Tom Pierre*, Mohamed Lamine Cisse, Fehmi Jaafar (Canada)
261	Artifact Removal 3D Neural Reconstruction Based Large-Scale Digital Twin Construction for Industrial Robot Simulation	Ki Hoon Kwon, Suwoong Lee, Byeong Hak Kim* (Korea, South)
246	A Real-Time Generalized Nash Equilibrium Framework for Interaction-Aware Autonomous Driving in Mixed Traffic	Nouhed Naidja (France)
474	M-GRAD: Fusing Heterogeneous Logs into AI-Driven Graphs for Anomaly Detection and IP Risk Analysis	Cagatay Ates*, Ilgın Şafak, Fatih Alagöz, Emin Anarım (Turkey)

SESSION P-32: Sp Session - Advanced Technologies for Industry 5.0 and Healthcare Applications (Part 2)

SESSION CHAIRS: Nicola Epicoco, Alessandro Massaro, & Giuseppe Loseto

Paper ID	Title	Authors
392	Robust MIMO Over-The-Air Computation for Distributed Estimation	Daniele Ferretti, Piergiuseppe Di Marco*, Vittorio De Iuliis, Costanzo Manes, Park Pangun (Italy)
397 v	Rolling-Horizon Task Allocation for Human–Robot Teams with Mental-State Awareness	Mojtaba Porghoveh*, Raffaele Carli, Mariagrazia Dotoli (Italy)
644	Memory-Centric Benchmarking of Neural Network Workloads on AMD Versal AI Engines	Leonardo Fazzini, Valerio Rughetti, Marco Santic, Giacomo Valente* (Italy)
649	Near-Optimal Graph-Based Routing for Manual Picker-To-Parts Warehouses: A Case Study of an Apulian Distribution Center	Federico Signorile*, Raffaele Carli, Michele Gorgoglione, Mariagrazia Dotoli (Italy)
854 v	On the Estimation of Global Network Topology Information	Thomas Van Assche*, Michael Defoort, Giordano Pola, Mohamed Djemai (France)

SESSION P-33: Robotics

SESSION CHAIRS: Ngoc Thinh Nguyen & Sergio Leggieri

Paper ID	Title	Authors
423	A Lightweight RK4-Based Wheel Odometry Integration for OpenVINS	Mehmet Muratoğlu* , Ismail Uyanik (Turkey)
236	Automatic Differentiation with Hypercomplex Numbers for Higher-Order Motion Analysis	Daniel Condurache*, Mihail Cojocari (Romania)

274	Hybrid Reinforcement Learning for Efficient Training of a Mobile Robot	Fedi Boukhris, Timo v. Marcard, Jens Christian Will, Hanno Homann* (Germany)
539	Vision-Based Navigation Models for Autonomous Rovers: Experimental Analysis and Comparison	Szilard Molnar, Levente Tamas* (Romania)
481	YAVER: An Autonomous Waiter Robot with Dynamic Human Mapping and Gesture-Based Service Rejection	Cetin Fidan,Emre Celik,Eren Koklu,Omer Mutlu Turk Kaya*,Erkan Uslu,Gokhan Erdemir (Turkey)
606	Artificial Intelligence-Based Sensor-Less Force Estimation for Smart Walkers: A Robust LSTM Disturbance Observer	Muhammad Ishaq*, Francesco Cancelliere, Dario Calogero Guastella, Giuseppe Sutera, Giovanni Muscato (Italy)

SESSION P-34: Learning Systems

SESSION CHAIRS: Bozenna Pasik-Duncan & Paolo Palmiero

Paper ID	Title	Authors
143	Distributed Tsetlin Machine-Based Learning for Energy-Efficient Wireless Sensor Networks	Rayan Azzam*, Yandi Liu, Fabien Courrèges, Romain Negrier, Jean-Pierre Cances, Raymond Quere (France)
358	A Comparison of AI Models for Viewport Prediction in Immersive 360° Video Streaming	Muhammad Farooq, Gioacchino Manfredi, Maria Martini, Saverio Mascolo, Luca De Cicco* (Italy)
372	Simplifying Flow Matching Transformations with Low-Rank Mixture Models	Liam Kruse*, Houjun Liu, Alexandros Tzikas, Mansur Arief, Mykel Kochenderfer (USA)
540	Automatic Growing Design Space Exploration with Concurrent Process and Constraints Modeling (AGE-PCM)	Fabian Schneider*, Tarek Kösters, Geritt Kampmann, Oliver Nelles (Germany)
455	Federated Learning for Mechanical Equipment Diagnostics: Applications to Image Segmentation and Tabular Data Anomaly Detection	MARIO EL TABACH* (France)

SESSION P-35: Control Theory

SESSION CHAIRS: Hicham Henna & Norelys Aguila Camacho

Paper ID	Title	Authors
786	Nonlinear Predictive Functional Control with Hammerstein Model and Application to Speed Control for Multicopter Rotors	Alexander Schulzke*, Joachim Horn, Mirco Alpen (Germany)
252	Stabilization and Control of Dynamic Systems in Metzlerian Block Controllable Canonical Form	Bahram Shafai*, Fatemeh Zarei, Amirahmad Saeidi (USA)
411	A Lyapunov-Guided Post-Action Shield for Stability-Aware Deep Reinforcement Learning	Hussain Kahil*, Petri Valisuo, Mohammed Salem Elmusrati (Finland)
594	Is Complexity Always Better? A Comparative Evaluation of Classical PID and Data-Driven MPC	Jean Arteaga, Juan Francisco Duran, Luis Ismael Minchala* (Ecuador)
491	Event-Triggered Neuro-Adaptive Control for a Disturbed Non-holonomic Multi-Agents System.	Valentín García Cervantes*, Juan Antonio Escareno Castro, Ouiddad Labbani-Igbida (France)
427	Iterative Learning Control for Unknown Nonlinear Systems Based on Data-Driven Model-Free Feedback Linearization	Boyu Wen, Xin Chen*, Wojciech Paszke (China)

SESSION P-36: Image Processing and Applications

SESSION CHAIRS: Vanessa Alvear & Marisol Vázquez Tzompantzi

Paper ID	Title	Authors
96	Quantitative Evaluation of Muscular Risks During Manual Load Handling Using Vision-Based System and Biomechanical Modeling	Cosimo Patruno*, Annaclaudia Bono, Tiziana D'Orazio, Grazia Cicirelli (Italy)
35	RGS-SLAM: Robust Gaussian Splatting SLAM with Image Reconstruction in Dynamic Scenes	Pao-Kai Wang, Hui-Wen You, Yu-Chen Lin* (Taiwan)
250	MSF-Fingerprint: Multi-Level Stability Framework for Partial Fingerprint Recognition	Kamel Houari*, Salim Chikhi (Algeria)*
657	Terrain Traversability Calculation Using Visual Friction Estimation and Geometric Information Fusion for Sloped Terrains	Arijan Vidulin*, Goran Vasiljević (Croatia)

181	A Modular Multimodal Pipeline for Scratch Detection, Segmentation, and Coordinate Extraction on Polymer Ski Surfaces	Pavel Kostarev*, Alexander Bartel (Germany)
434	Detecting Hard Examples for Semantic Segmentation with Auxiliary 3D LiDAR	Yuriko Ueda, Miho Adachi, Ryusuke Miyamoto* (Japan)

SESSION P-37: Supply Chain Management

SESSION CHAIRS: Davis Loose & Issam Nouaouri

Paper ID	Title	Authors
621	CVaR-Constrained Heterogeneous-Agent Proximal Policy Optimization for Robust Multi-Echelon Inventory Control under Stochastic Demand and Lead Times	Youssef Ben Amor*, Ilhem Slama, Zied Jemai, Evren Sahin (France)
124	An MPC-Based Framework for Enhanced Analysis and Mitigation of the Bullwhip Effect in Supply Chains	Valentina Orsini* (Italy)
337	Order Picking Planning with Backorder Optimization for Customized Products in an Automated Warehouse	Laura Amodeo*, Nhan Quy Nguyen, Yassine Ouazene, Farouk Yalaoui, Fabien Cordon, Murat Kurban, Jérôme Lansoy (France)
654	Optimizing Hierarchical Valorization Pathways in Plastic Waste Re-Verse Logistics with Contamination-Dependent Technology Selection	Syrine Laouini, Julien Trochu, Rim Larbi, Amin Chaabane* (Canada)
377	Strategic Capacity Management in Big-Size, Engineer-To-Order Supply Chains	Paula Sofia CASTRO ACEVEDO*, Yenny PAREDES-ASTUDILLO, Lorraine Trilling, Anne-Laure Ladier (France)
652	Shift Scheduling for Electric Service Vehicles: A Public Transportation Case Study	Bouchra Zohra BEN MESSABIH , Walid BEHIRI*, Sana Belmokhtar-Berraf , Abderrahim Sahli , Tasseda Boukherroub(France)

SESSION P-38: Embedded Systems

SESSION CHAIRS: Giacomo Valente & Atif Mahmood

Paper ID	Title	Authors
740	UAV Crosswind Tail Stabilizer	Danniel Stoller*, Shayke Shabtay Bilu, Dan Binyamin, Dov Liudmirsky (Israel)
187	NPSIM: A Tick-Accurate CPU–NPU Simulator for Scheduling Analysis of CNN Applications	Mourad Dridi* (France)*
626	A Distributed Sensor Network Architecture for UAVs with Heterogeneous Processing Hardware	Rolando Cortes Martinez*, Oscar Fabian Archila Cruz, Johannes Schiffer (Germany)
572	Design and Experimental Validation of a Face-Extension Cubic Modular Robot for Shape Formation	Karolis Sumskas*, Hiroshi Kawakami (Japan)
758	Design, Optimization, and Experimental Validation of a 3-DOF Parallel Robotic Ankle Based on a 2SPU-1RU Architecture	Gonzalo Oshiro, Brayam J Lazares, Claudia Casanova, Victoria E. Abarca*, Dante A. Elias (Peru)
72	Application of Takens's Delay-Embedding to extract indirect measurements from nonlinear oscillating sensors	Francesco Grimaldi*, Christian Geminiani, Andrea Tilli (Italy)

SESSION P-39: Predictive Control

SESSION CHAIRS: Paolo Palmiero & Daniela Iacoviello

Paper ID	Title	Authors
670	Distributed Koopman-Based NMPC for Virtually Coupled Train Control System	Yiwen Zhang, Lorenzo Calogero, Shukai Li, Anton Proskurnikov* (Italy)
213	Space Vector Modulated Model Predictive Control Applied to Four-Wire Inverters	Vítor Paese De Carli, Hilton Gründling, Humberto Pinheiro, Rodrigo Varella Tambara* (Brazil)
373	Bridging Predictive and Prescriptive Maintenance in Equipment Leasing: A Review and Research Roadmap	Remi Djoumato, Ayoub Chakroun*, Faicel Hnaien, Akim Salami Adekunlé (France)

437	Integrated Graph Search and Model Predictive Control for Smooth and Efficient Path Planning in Autonomous Vehicles	Duc Tien Bui*, Ngoc Thinh Nguyen, Duy Hung Nguyen, Dong Bi, Tomislav Mihalj, Arno Eichberger (Austria)
782	Situation-Aware Feedback-Predictive Control Framework for Lane-Less Dense Traffic	Parthib Khound*, Debraj Chakraborty (India)

SESSION P-40: Optimal Control

SESSION CHAIRS: Ngoc Thinh Nguyen & Muhammad Ishaq

Paper ID	Title	Authors
407	Environment Dependent Trade-Offs in Eco-Driving with Driver Preference Integration for Electric Vehicles	Samia Qamar*, Peter Hubbard, Will Midgley, James Fleming (United Kingdom)
838	String Stabilization of Predecessor-Following Vehicle Platoons Using Linear Quadratic Integral Control	Carlos Escobar*, Luis Severino, Marco Gordon, Andres Peters, Francisco J. Vargas (Chile)
680	Bilevel Inverse Optimal Control for Lane-Change Costs in Automated Driving	Leon Constantin Greiser*, Christian Rathgeber , Vladislav Nenchev , Sören Hohmann (Germany)
140	Adaptive Observer-Based Optimal Control Via Dual Integral Reinforcement Learning	Jie Ren , Bahram Shafai* (USA)
122	Fuzzy Adaptive Sliding Mode Control of Fractional-order Chaotic Lorenz Systems	Devasmito Das, Ina Taralova*, Jean Jacques Loiseau (France)
268	Energy Efficiency in Aquaculture: Outperforming Rule-Based HVAC Control with Nonlinear MPC	Klaas Voeltzer*, Axel Hackbarth, Jonathan Klinge (Germany)

SESSION P-41: Sp Session - Resilience Analysis and Systems Engineering

SESSION CHAIRS: Davis C. Loose, James H. Lambert, & Igor Linkov

Paper ID	Title	Authors
262	Order Sensitivity of Integrated Electronics Supply Networks in Emergent Customer and Market Conditions	Matthew C. Gunn*, Davis Loose, Megan E. Gunn, Megan C. Marcellin, Negin Moghadasi, Thomas L. Polmateer, Zachary Collier, Karen R. Jackson, Igor Linkov, James H. Lambert (USA)
263	Network Systems Analysis and Value-Focused Decision-Making for Regional Logistics	Megan E. Gunn*, Megan C. Marcellin, Matthew C. Gunn, Davis Loose, Eric Jehu, Femi Popoola, Karen R. Jackson, Daniel F. Otero-León, Igor Linkov, James H. Lambert (USA)
290	Assessment of System Order Risk and Resilience with Modeled Societal and Hydrologic Variables	Gigi Pavur, Megan C. Marcellin, Davis Loose*, Megan E. Gunn, Matthew C. Gunn, Benjamin D. Trump, Igor Linkov, Venkataraman Lakshmi, James H. Lambert (USA)
366	System-Level Risk Modeling for Critical Infrastructure in Data-Limited Regions	Megan C. Marcellin*, Gigi Pavur, Beth Ellinport, Stephanie Galaitsi, Benjamin Trump, James H. Lambert (USA)
386	Dynamic Resilience of Interdependent Freight Infrastructure and Multimodal Logistics Facilities	Davis Loose*, Megan C. Marcellin, Megan E. Gunn, Matthew C. Gunn, Femi Popoola, Karen R. Jackson, Eric Jehu, Igor Linkov, James H. Lambert (USA)

SESSION P-42: Sp Session - Nonlinear Control Strategies for Robotic Systems

SESSION CHAIRS: Enver Tatlicioglu, Cagri Hindistan, & Abdulkadir Sehmus Ozgun

Paper ID	Title	Authors
355 v	Lyapunov-Based Adaptive Control for Constrained Kinematic Tracking of Robot Manipulators under Parameter Uncertainty	Armin Razmgiri*, Erman Selim , Enver Tatlicioglu (Turkey)
384	Design, Development, and Experimental Validation of a 2 Dof Electro-Hydraulic Robot Arm Test System	Sule Taskingollu, Erman Selim*, Enver Tatlicioglu (Turkey)
549	A Comparative Numerical Evaluation of PID-Based Controllers on a Twin Rotor MIMO System	Abdulkadir Sehmus Ozgun*, Erman Selim, Serap Demirkol Ozgun, Alper Bayrak, Enver Tatlicioglu (Turkey)
556	Development and Experimental Validation of a Low--Cost DC Motor Platform for Educational Control Applications	Huseyin Deniz Ozturk, Cagri Hindistan*, Volkan Akar, Oyku Ozge Korkmaz, Erman Selim, Enver Tatlicioglu (Turkey)

651	Development of a Fabrication Setup for Producing Super-Coiled Polymer Actuators	Cagri Hindistan*, Erman Selim, Enver Tatlicioglu, Yavuz Ozturk (Turkey)

SESSION P-43: Sp Session - Applied AI for Emerging Autonomous Systems: Innovations and Challenges

SESSION CHAIRS: Imen Jegham, Abir Mhenni, Lamia Rzouga Haddada, & Ines Baccouche

Paper ID	Title	Authors
396 v	A Petri Net-Based Framework for Automated Regulatory Compliance in Autonomous Systems Using Large Language Models	Aziz Amari*(Tunisia)
492 v	Towards Real-Time LPD on Resource-Constrained CPUs: An Empirical Evaluation of Pruning and Quantization for YOLOv8	Safa Ameur*, Amir Ismail, Xavier Clady, Anis Sahbani, Najoua Essoukri Ben Amara (Tunisia)
573	ForgEgg-ViT: A Forgery-Aware Adaptive Transformer for Copy-Move Detection in Parasitic Egg Microscopy	Hala Chouari, Lamia Rzouga Haddada*, Najoua Essoukri Ben Amara (Tunisia)
656 v	PrivFace-AI: A Federated Learning-Based Privacy-Preserving Face Recognition Framework for Unconstrained Environments	Laila Ouannas* , Meriem Lallouch, Sami GAZZAH (Tunisia)
665	Physically-Informed BiLSTM for Lithium-Ion Battery SoC Estimation	Ines Baccouche*, Najoua Essoukri Ben Amara (Tunisia)

SESSION P-44 Mobile and Wireless Communications

SESSION CHAIRS: Marisol Vazquez Tzompantzi & Krisztián Bálint

Paper ID	Title	Authors
602	Trust-Based Admission and Departure Control for Cooperative Platooning	Emma Braiteh *, Francesca Bassi, Rida Khatoun (France)
179	Mobile Robot–Assisted Collection of a 5G Measurement Indoor Dataset	Jan Faigl*, Vsevolod Hulchuk, Simon Uhrmann, Rudolf Szadkowski, Markus Peterhansl (Czech Republic)
188	Linear Regression–based Signal Strength Modeling Using Real-World Data	Jachym Herynek, Martin Zoula, Jan Faigl* (Czech Republic)
135	Double Deep Reinforcement Learning-Based UAV Positioning for Throughput Optimization in Wireless Networks	Berke Kılınç*, Mehmet Önder Efe (Turkey)
210	Effectiveness of Interpolation Methods for LiDAR Point Cloud Intensity Imaging	Imran Ashraf*, Soojung Hur, Yongwan Park (Korea, South)

SESSION P-45: Engineering Applications

SESSION CHAIRS: Mohamed Ghazel & Tadele Belay Tuli

Paper ID	Title	Authors
147	Remote Photoplethysmography (rPPG) Data Generation: A Concise Review	Hmedeh Ahmad* (France)
811	Automated PLC Programming Using a Multi-Task LLM System	Teresa Cacciapaglia*, Denis Ruffino, David Naso, Paolo Roberto Massenio (Italy)
535	A Physics-Guided Hybrid Digital Twin for Early Warning of Ground-Related Hazards in Railway Corridors	Fakhreddine Ababsa* (France)
161	Event-Driven Trainer Architecture for MARL in ROS2-Compatible Simulations	Oliver Wolf*, Andreas Schwung, Dorothea Schwung (Germany)
352	Materials Applied in Aviation Structures and Modern Non-Destructive Testing Methods for Crack Detection	Miglena Kyoseva, Nikolay Stoimenov* (Bulgaria)
787	Toward an Advanced Level Crossing Control Enabled by Train–infrastructure Communication	Mohamed Ghazel* (France)

SESSION P-46: Signal Processing SESSION CHAIRS: Bahram Shafai & Bozenna Pasik-Duncan		
Paper ID	**Title**	**Authors**
784	Investigating the Effect of Sustainable Product Packaging on Consumer Behavior Using EEG Signals	Eray Ozcan Kilic, Burak Akbugday*,Aydin Akan,Riza Sadikzade (Turkey)
777	Analysis of Human Emotions for Different Taste Stimuli Using EEG Signals	Berkay Tunakan*, Aydin Akan, Yaren Taskin, Kamile Nazan Turhan (Turkey)
226	An Accurate Epilepsy Diagnosis Approach Based on Fractal Dimension of Brain Rhythms and Chaos-Embedding	Zayneb Brari*, Ines Bouzouita, Safya Belghith (Tunisia)
379	Onboard Adaptive Digital Twin for Commissioning Assistance Systems in Large-Scale Construction Machines with Cable-Suspended End-Effectors	Marius Krüger*, Birgit Vogel-Heuser, Philip Müller, Kathrin Land, Daniel Waterman, Theresa Prinz, Matthias Semel (Germany)
267	Advanced Data Augmentation Strategies for EEG-Based Alzheimer's Disease Classification Using Deep Learning	Achref Othmani*, Ines Bouzouita Ep Bayoudh, Zayneb Brari, Belguith Safya (Tunisia)
71	Refined Unknown Input Observer Design for Time-Delay Systems with Uncertainties	Chien-Shu Hsieh*(Taiwan)

SESSION P-47: Advanced Control Systems SESSION CHAIRS: Eric Bideaux & Alvarez Munoz Jonatan		
Paper ID	**Title**	**Authors**
736	ReHabGame-AI: A Human-In-The-Loop Adaptive Control Framework for Compensation-Aware Rehabilitation Gaming	Shabnam Sadeghi Esfahlani*, Jason Taylor (United Kingdom)
207	Neural Network-based Imitation Learning for Optimal Satellite Formation Control	Oleksandr Dyblenko, Caterina Santoro*, Luciano Blasi, Egidio D'Amato, Immacolata Notaro (Italy)
26	Deep Learning High-Gain Observer for Power System Dynamic State Estimation	Raoul Irenge Baguma*, Tarek Ahmed Ali, Mohamed-Amin Benatia, Homere Nkwawo, Janik Jean-Marie (France)
600	Control for Powered-Two Wheeler Stability Assistance and Autonomy: Development of a Test Platform	Luca Bassani*, James Fleming, Qusay Hawari, Stefano Lovato, Guitao Yang, Roberto Lot (Italy)
353	Experimental Validation of Cyber-Resilient Electrical Drive Systems Via Encrypted Controller Implementation	Marco Baldi, Eleonora Brasili*, Franco Chiaraluce, Rahmi El Mechri, Gianluca Ippoliti, Giuseppe Orlando (Italy)
223	Robust Formation Control of Wheeled Mobile Robots Using DDPG and TD3 Algorithms	Saraswathi Nayakanti*, Manjeet Rege, Shyam Krishan Joshi, Peplluis Esteva, Hemachandran K, Raul Rodriguez (India)

SESSION P-48: Control Design Methods SESSION CHAIRS: Alejandro Rojas & Antonio Loría		
Paper ID	**Title**	**Authors**
413	Metaheuristics-Based LPV Controller Synthesis with Uncertainty Volume Maximization	Rémi Pédenon-Orlanducci* , Philippe Feyel , David Saussie (Canada)
428	Simple Two-Stage Damping Modulation Procedure in Linear System Feedback Designs	Antonio Alexandridis* (Greece)
168	Some Results on Scaled Consensus Over Directed Graphs	Elena V. Panteley , Antonio Loria*, Alessio Iovine (France)
190	Power Constrained NCS Design for SIMO Plant Models	Alejandro Rojas* , Hector Ramirez (Chile)
247	Adaptive Compensation and Adaptive Optimal Control of a Single Link Manipulator	Abdullah Almansour* , Afreen Islam , Guido Herrmann (United Kingdom)
526	Simple Trajectory Smoothing for UAV Reference Path Planning Based on Decoupling, Spatial Modeling and Linear Programming	Mogens Plessen* (Switzerland)

SESSION P-49: System Identification SESSION CHAIRS: Davide Tebaldi & Marisol Vazquez Tzompantzi		
Paper ID	**Title**	**Authors**
781	Parameter Identification of a Macroscopic Crowd Model Governed by a Hyperbolic PDE Using Physics-Informed Neural Networks	Ousmane Fall*, Didier Georges, Anne-Françoise Yao (France)
148	Identifiability-Guided Bound Tightening for Parameter Identification under Plant-Model Mismatch	Terrance Wilms, Steffi Knorn* (Germany)
449	Quantifying Similarity between Nonlinear Systems from Data Using Matrix Profiles	Ankush Chakrabarty, Daniel Nikovski* (USA)
684	Hyper-Exponential Dynamic Regressor Extension and Mixing with Covariance Adaptation	Martin Guay* (Canada)
676	Data-Driven Identification of a Linear Parameter-Varying Model for Overhead Crane Sway Dynamics	Xingyi Li*, Danielle Nyakam Nya, Franco Falconi, Tarek Raïssi (France)
365	An Experimental Methodology for LuGre Friction Identification and Validation in Precision Motion Systems	Andrea Urquiza*, Mohamed Yagoubi, Fabien Claveau, Philippe Chevrel, Franck Duquenoy, Patrick Thomas, Philippe Wernert (France)

SESSION P-50: Combinatorial Optimization SESSION CHAIRS: Djamal Rebaine & Sana Belmokhtar-Berraf		
Paper ID	**Title**	**Authors**
627	A Search and Rescue Problem with Path-Planning under Uncertainty	Joël Bougron*, Julien Alexandre dit Sandretto, Bruno Ricaud, Stéphane Cardon, Aline Hufschmitt (France)
795	A new cutting-plane algorithm for the min s-t cut problem	Giuseppe Lancia* , Neil Simonetti, Robert Carr (Italy)
376	Separation sequencing in batch distillation under closed mode operation	Pravin Dange, Sujit Jogwar* (India)
809	A Decentralized and PSO-Optimized Multi-Robot Motion Planning Approach for Dynamic Environments	safa ziadi* , Ridha El Hamdi , Mohamed Njah (Tunisia)
808	Graph Construction for Uncrewed Convertiplanes Incorporating Operational Risk Using Geospatial Data	Philipp Hermann Müller*, Florian Knaak, Rafael Godinho Ferreira, Nicolai Voget, Dieter Moormann (Germany)
193	Marketing to Machines: Delegation of Consumer Decisions to Algorithmic Agents	Milos Bujisic* , Vanja Bogicevic (USA)
84	On a Problem Related to Achieving a Given Level by a Random Process	Sergei Semakov*(Russia)

SESSION P-51: Sp Session - Data-Driven Control and Estimation: Robust Methods for Noisy and Uncertain Systems SESSION CHAIRS: Francesco Giannini & Vahid Hamdipoor		
Paper ID	**Title**	**Authors**
105	A Novel Data-Driven Representation of Linear Systems Based on Dynamic Mode Decomposition with Control to Deal with Noisy Data	Francesco Giannini* (Italy)
357 v	Adaptive Centralized State Prediction for Multi-Agent Systems via Sliding-Window Dynamic Mode Decomposition	Mehmet Alp Merzi* (Turkey)
360	Econometric Model of Energy Consumption and Generation in Ecuadorian Households with the Integration of Photovoltaic Systems and Electric Vehicles	Braulio Paul Balseca Dahua*, Kerly Mishell Vaca Vallejo, Johnny Fernando Hidalgo Rodríguez, Johnny Michael Jacome Corrales, France Andreina Maldonado González (Ecuador)
476 v	Advanced Convergence Optimization in Consensus-Based Wireless Sensor Networks Via Strategic Node Addition and Pinning Control	Francesco Lamonaca , Luigi D'Alfonso* (Italy)
359	Data-Driven Estimation of Noisy Electrical Demand for Public Power Company in Ecuador	Kerly Mishell Vaca Vallejo*, Braulio Paul Balseca Dahua, Alexis Bayardo Vaca Barahona, Byron Gabriel Vaca Vallejo (Ecuador)

477 v	Adaptive Data-Driven Estimation for Simultaneous Localization and Dynamic Signal Mapping in GNSS-Denied Vehicular Networks	Luigi D'Alfonso*, Giuseppe Fedele, Mauro Tropea (Italy)
328	Stability Data-Driven Solar Forecasting for Grid Scheduling in the Galápagos Islands	Kerly Mishell Vaca Vallejo*, Byron Ernesto Vaca Barahona, Braulio Paul Balseca Dahua (Ecuador)

SESSION P-52: Nonlinear Systems

SESSION CHAIRS: Bozenna Pasik-Duncan & Lorinc Marton

Paper ID	Title	Authors
566	Magnetorheological Damper Relative Velocity Estimation Using a Takagi-Sugeno Fuzzy Observer with Unmeasured Premise Variables	Kicheol Jeong*, Seongjin Kim, Hyungjeen Choi, Hyomin Jin (Korea, South)
497	An Exponentially Convergent Velocity Observer for Nonholonomic Mobile Robots with Nonlinear Friction Terms	Jose-Guadalupe Romero* (Mexico)
498	Parameter Estimation of a Class of Mechanical Systems Using Only Position Measurement	Jose-Guadalupe Romero*(Mexico)
222	Separation Sequencing in Batch Distillation with Slop Recycle	Prachi Sharma , Sujit Jogwar* (India)
763	Dynamics and Control of an Octocopter with Flexible Structure	Danniel Stoller*, Yoav Y. Biton, Shai Arogeti (Israel)

SESSION P-53: Sp Session - Digital Transformation of Healthcare Infrastructure of Smart Cities and Communities

SESSION CHAIRS: David Bogataj & Alenka Temeljotov Salaj

Paper ID	Title	Authors
200	Bridging the Digital Care Gap: Opportunities and Challenges of Technology-Supported Social Services for Older Adults in Slovenia and Croatia	Suzanna Mežnarec-Novosel*, Dominika Muršec, Daniel Trošić, David Bogataj (Slovenia)
281	Clinical and Economic Effectiveness of Smart Home Technologies for Independent Living of Older Adults: A Literature Review and Research Agenda	Matej Bundersek Krempl*, Ales Bundersek Krempl , David Bogataj (Slovenia)
314 v	AI-Driven Decision Support Systems for Lifestyle Modification in Cancer Prevention: Personalisation, Technologies and Ethical Challenges	Renata Šabeder , Jurij Pivka* (Slovenia)
389 v	Digital Readiness and Cybersecurity Awareness of Older Adults: A Conceptual Framework for Safe Participation in AI-Enabled Smart Communities	ANA ROTOVNIK OMERZU* (Slovenia)
400	AI-Driven Gerotechnology for Reducing Language Barriers in European Long-Term Care	Renata Šabeder* , Jurij Pivka (Slovenia)
484	Intergenerational Community Spaces As Social Infrastructure for Reducing Loneliness and Digital Exclusion in Ageing Smart Cities	Matic Lesjak*(Slovenia)

SESSION P-54: Neural Networks in Engineering

SESSION CHAIRS: Giacomo Valente & Sofiene Lassoued

Paper ID	Title	Authors
239	Deep Learning for Virtual Reality User Identification: A Benchmark	Davide Frizzo*, Fabrizio Genilotti, David Petrovic, Arianna Stropeni, Francesco Borsatti, Davide Dalle Pezze, Riccardo De Monte, Gian Antonio Susto (Italy)
196	Warpage Deformation Prediction and Optimization in Fused Deposition Modeling Using a Hybrid FFNN and PSO Approach	AmirPouya Masoumi , Ramen Ghosh, Marion McAfee* (Ireland)
588	Low-Order Continuous-Time Koopman Operator Learning Via Physics-Informed Neural Networks	Mickaël Zodros* (France)
585	Efficient Transfer Learning of Robot Dynamic Models Using Morphological Similarity	Pavlo Kupyn*, Yuya Hamamatsu, Roza Gkliva, Asko Ristolainen, Maarja Kruusmaa (Germany)

544	EdgeLPR: On the Deep Neural Network Trade-Off between Precision and Performance in LiDAR Place Recognition	Pierpaolo Serio*, Zixiang Wei, Hetian Wang, Vincenzo Infantino, Lorenzo Gentilini, Lorenzo Pollini, Valentina Donzella (Italy)
49	CNN-Based Recognition of Liquid–Gas Flow Regimes in a Pipeline Using Gamma-Ray Absorption and Signal Spectrograms	Robert Hanus*, Marcin Zych, Piotr Ochał (Poland)

SESSION V-01: Applied Optimization

SESSION CHAIRS: Aniket Wattamwar, Adrian Guel, & Zeineb Ben Houria

Paper ID	Title	Authors
450	A Process-Oriented Balanced Scorecard Framework for Enhancing Managerial Efficiency in Tunisian Hospitals	Zeineb Ben Houria*, Ben Chihaoui Faten (Saudi Arabia)
278	Dual-Determinant Clustering Algorithm for Optimization of Disaster Response Logistics	Sampson Akwafuo*, Asad Abdul (USA)
294	A Bio-Inspired Approach for Accurate Parameter Identification of PEM Fuel Cells Based on Water Uptake and Transport in Plants	Houda Allagui*, Ahmed Jeridi, Abderrahmen Zaafouri (Tunisia)
120	Scalable High-Order Newton Methods Based on Duan's Analytic Adomian Polynomial Algorithms	Varsha Yadav*, Anand Shukla, Krishna Kumar, Akhilesh Kumar Singh (India)
716	Optimizing Workforce Allocation through Reinforcement Learning: An Automatic Approach to Human Resource Management	Valentina Tonazzo, Marina Ceccon*, Francesco Boscolo Meneguolo, Gian Antonio Susto (Italy)
801	Topology-Aware GNN-DQN for Optimal Task Offloading in Edge–Fog–Cloud Systems	Sirine Hakim*, Yassa Sonia (France)
691	Convex-Hull Based Dynamic Footprint of Mobile Manipulators for Collision-Safe Navigation in Nav2	Keerthi Sagar Somenedi Nageswara Rao*, Philip Long, Carlos Garcia (Ireland)
418	Evaluating SOCP for AC Optimal Power Flow in Stressed Power System Conditions	Aditi Ramteke*, Madhavi Parimi, Kshitij Gaikwad, Shubh Arekar, Tejal Jadhav, Shashank Shekhar Verma (India)

SESSION V-02: Fault Tolerant Control

SESSION CHAIRS: Himanshukumar Patel, Asma Kausar, & Giuseppe Franzè

Paper ID	Title	Authors
399	A Deep Learning-Based Thermal Analysis System for TNB Substation Monitoring	Azka Aftab, Asma Kausar (Saudi Arabia)
438	Integrity-Aware Marine Navigation under Multi-Sensor Attacks Using Adaptive Descriptor Error-State Filtering	Mohammadreza Nematollahi, Mahdi Taheri, Shahab Chehraghi, Khashayar Khorasani (Canada)
440	Resilient Distributed Internal-Model Control Allocation under Pinned-Agent Failures	Shahab Chehraghi, Mohammadreza Nematollahi, Khashayar Khorasani (Canada)
554	Robust Nash Equilibria of Age of Incorrect Information Games in Cyber-Physical Systems	Valeria Bonagura, Chiara Foglietta, Federica Pascucci, Leonardo Badia (Italy)
242	Autism Spectrum Disorder Detection from Facial Images Using Deep Convolutional Neural Networks	Marwa Ghrouda, Hend Basly, Fatma Ezzahra Sayyadi (Tunisia)
436	Impact of Battery Aging on the Performance of Low-Complexity State-Of-Charge Estimators: A Real-Data Analysis	Isaías Valente de Bessa* , Gildas Besançon, Antoneta Iuliana Bratcu, Daniel Coutinho , Iulian Munteanu (Brazil)
266	Federated Learning for Fault and False Data Injection Attack Detection in the IEEE 9-Bus System	Najla Aljuaid*, Dhruv Singh Kushwaha, Zoleikha Biron, Roghieh Biroon (USA)
734	Neural Network-Based Predefined-Time Robust Control for Quadrotors with Actuator Faults	Sanjeev Ranjan*, Kiran Kumari (India)

SESSION V-03: Artificial Intelligence

SESSION CHAIRS: Dhirendra Kumar Verma, Raymond Houé Ngouna, & José Alejandro Jaime Vargas

Paper ID	Title	Authors
462	Building Customer Engagement through Trust in AI-Based Retail Services	Juvanto Lempoy*, Risca Sari (Indonesia)

677	MedNSR-Net: Trustworthy Chest X-Ray Decision Support Via Hybrid CNN–Transformer with Uncertainty and Explainability	Yosra Didi*, Ahlem Walha, Ali Wali (Tunisia)
592	Efficiency-Accuracy Trade-Offs in Quantised Deep Transfer Learning for Radiant Coil Inspection	Sit Paing Htun*, Sarawan Wongsa, Isaratat Phung-On (Thailand)
271	Improving Transit System Reliability through Log-Based Anomaly Detection in a Smart Autonomous Device	Nadira Anjum Nipa*, Nizar Bouguila, Zachary Patterson (Canada)
590	3D-PipeCLIP: Leveraging Geometric-Language Alignment for Sewer Defect Classification from Point Cloud Data	Alex George*, Aristeidis Karnezis, Lyudmila Mihaylova, Sean Anderson (United Kingdom)
448	Explainable Ensemble Learning classification of Sleep Staging	Hajer ALAYA , Lilia Rejeb* , Lamjed Ben Said (Tunisia)
95	SAGE: SLO-Aware Adaptive Retrieval for Production RAG Systems	Muhammad Faizan Raza, Shuo (Luna) Yang, Satish Mahadevan Srinivasan* (USA)
834	A Framework for Fairness Evaluation in Academic Recommender Systems: Evidence from Scholarly Data	Gabriela Suntaxi, César Sarango, Marco Aguirre, Lorena Recalde* (Ecuador)

SESSION V-04: Control Design Methods

SESSION CHAIRS: Chiranjib Guha Majumder, Zoltán Téczely, & Khushboo Kumari

Paper ID	Title	Authors
829	Efficiency Assessment of PSO-Based MPPT Methods: Review, Simulation, and Benchmarking Against Conventional Techniques	Houssine EL HAMMEDI, Jaouher Chrouta, Abderrahmen ZAAFOURI (Tunisia)
839	Monotonic Output Regulation of Discrete-Time MIMO Systems with Repeated Unit Zeros and Input Delays	Abishek Gourave, Tushar Jain (India)
511	Hardware-Friendly Fractional Filter Synthesis Via a Quantum-Inspired Bloch Sphere Approach	Mohamed Ramzi Bendar, Youcef Malek, Mohamed Tadjine, Nadjet Zioui (Canada)
726	Nonlinear MRAC for MIMO Linear Time-Invariant Systems under Neural Network Control	Dalim Wahby, Alvaro Detailleur, Guillaume Ducard (France)
503	Super-Twisting Control of 2-DOF Robotic Manipulator using Higher-Order Sliding Mode Observer	Thiyagarajan Anushalalitha, Rahul Kumar Sharma (India)
690	Non-Singular Terminal Super-Twisting Control of 2-DOF Robotic Manipulator using Higher-Order Sliding Mode Observer	Thiyagarajan Anushalalitha, Rahul Kumar Sharma (India)
797	On the Role of Natural Frequency ωn in the Overshoot of σ-ωn Second Order Transfer Functions with Constant Damping Factor: Application to a Robotic Position Servomotor	Gabriela Zepeda, Rafael Kelly, Maria del Carmen Monroy Lara, Jasit Gonzalez Martinez (Mexico)
689	Stability Analysis of I-Pδ Controllers for SISO Time-Delay Systems	Julián-Alejandro Hernández-Gallardo*, Silviu-Iulian Niculescu, Erick Moreno, César Fernando Méndez-Barrios (Mexico)

SESSION V-05: Image Processing based AI

SESSION CHAIRS: Iuliana Marin, Jaafar Almutawa, & Maria V. Leyba-Mesa

Paper ID	Title	Authors
220	DESiT-Lite: An optimized and quantized vision transformer model for wildfire detection in resource-constrained embedded environments	Paul Mahenina Randriamitsiry*, Deric Claudio Vitasoa, William Germain Dimbisoa, Hajarisena Razafimahatratra, Thomas Mahatody (Madagascar)
91	Architectural Inductive Bias in Knowledge Distillation: Disentangling Representational Similarity from Performance Transfer	Tamuno Opubo Dappa, Somtochukwu Anunobi* (United Kingdom)
783	AI-Driven Distributed Multi-Sensor Fusion for Real-Time Drone Detection in Urban Airspace	Neno Ruseno*, Enrique Puertas, Aurilla Aurelie Arntzen Bechina (Norway)
435	Drivers of Generative AI Acceptance in Agriculture: An AHP Study with Synthetic Experts	Murat Tahir Caldag* (Turkey)

823	A Dual-Phase Attention CNN-LSTM for MOOC Student Dropout Prediction	Fatma Dhaoui*, Kalthoum Rezgui, Nadia Ben Azzouna (Tunisia)
756	Toward Agentic AI in Cardiology: A Multimodal Multi-Agent Framework for Cardiovascular Risk Assessment	Hayat Bihri*, Achraf El Mounafih, Aissam El Hasnaoui, Salma Azzouzi, Moulay El Hassan Charaf (Morocco)
584	Lightweight Semantic 3D Mapping in Sewer Pipes Leveraging Cylindrical Geometry	Alex George*, Lyudmila Mihaylova, Sean Anderson (United Kingdom)
662	LungNet-CT: A Unified Deep Learning Framework for Efficient Lung Cancer Classification from CT Images	Dhekra BenSassi*, Marouene Chaieb (Tunisia)

SESSION V-06: Nonlinear Systems

SESSION CHAIRS: Konstantinos Ampountolas, Pasquale Palumbo, & Ernesto Zambrano-Serrano

Paper ID	Title	Authors
637	Finite-Time Nonsingular Terminal Sliding Mode Control for 3D Trajectory Tracking of a Quadrotor UAV under Exogenous Disturbances	Edin Avdukic , Almir Salihbegovic* , Emir Sokic , Nedim Osmic (Bosnia and Herzegovina)
335	Control of Uncertain Nonlinear Systems Using Non-Parametric Machine Learning	Saisamhith Karangula , Ketan Detroja*(India)
816	Differential Exponential Stability of Nonlinear Time-Invariant Systems	Mario Spirito* (Italy)
634	A Non-Singular Finite-Time Backstepping Controller Design for Attitude Tracking of a Quadrotor UAV	Leila Fatemi , Fatih Adiguzel*? Şeref Naci Engin (Turkey)
757	Nonlinear 3D Spiral Trajectory Tracking of a 3-DOF Helicopter: A Comparative Analysis of SDRE and Successive Approximation Strategies	Ahmet Cagri Arican* (Turkey)
812	A Comparative Study of Linear vs. Nonlinear Data-Driven Modeling Accuracy and Fault Detection Sensitivity in Chemical Processes	Nour Basha, Byanne Malluhi, Hazem Nounou, Mohamed Nounou* (Qatar)
202	Modeling and Comparative Control Analysis of a Quadrotor UAV: PD, LQR, and LQI Approaches	Berat Umut Ipek*, Aylin Bakkal, Merve Uzunoglu, Ibrahim Aliskan (Turkey)
452	Robust Pitch Control of a 1.5 MW Wind Turbine Using Integral Sliding Mode Control	Marcos de la Rosa*, Matilde Santos Peñas, Jesus Enrique Sierra-Garcia (Spain)

SESSION V-07: Intelligent Learning Systems

SESSION CHAIRS: Edmilson Suassuna Da Silva, Naima Mchiri, & Afef Ben Said

Paper ID	Title	Authors
106	A Preliminary Review of Generative AI as a Decision-Support System for Students with Motor Disabilities in Higher Education	José Alejandro Jaime-Vargas* (Mexico)
125	Youth Perspectives on AI Ethics: An Exploratory Study within the VERFISUM Project	Paulo Duarte Branco*, Andreia Teles Vieira, Maria Barbas (Portugal)
461	A Conceptual Agent Based Framework for Personalized Interface Recommendation in Educational VR Games	Lada Males*, Jelena Nakić, Marko Rosić (Croatia)
234	DenseSwinLight: A Hybrid CNN–Transformer Model with Lightweight Post-Hoc Fusion for Visual Explainability	Deric Claudio Vitasoa*, Paul Mahenina Randriamitsiry, Hajarisena Razafimahatratra, Thomas Mahatody (Madagascar)
318	Textual Arabic Emotion Detection Using a Hybrid Approach with Generative Kernels	Nuha Zamzami*, Fatma Najar (Saudi Arabia)
483	A.S.E.T: Adaptive Sparse Event-driven Transformers for Real-Time Multimodal Perception on Resource-Constrained Platforms	Lahidama El Jean M'Crai*, Alain Josué Ratovondrahona, Ndaohialy Manda-Vy Ravonimanantsoa, Thomas Mahatody (Madagascar)
454	Bayesian Deep Knowledge Tracing: A Hybrid Bayesian–Neural Approach to Student Modeling	Narovanjanahary Mandasoa Esther*, Alain Josué Ratovondrahona, Ndaohialy Manda-Vy Ravonimanantsoa, Thomas Mahatody (Madagascar)
845	Subgroup Performance Analysis of an Interpretable Multimodal Framework for Glaucoma Screening	Amira Soltani*, Imed Jabri (Tunisia)

SESSION V-08: Predictive Control SESSION CHAIRS: Garima Bhandari, Subham Dey, & Tomasz Feliks		
Paper ID	**Title**	**Authors**
160	Correctability-Aware Drift Mitigation Via Feasible Setpoint Adaptation: A Steel Industry Use Case	Paolo Catti, Vaggelis Lakkas-Pyknis, Kosmas Alexopoulos, Nikolaos Nikolakis* (Greece)
712	Learning-Augmented Tube Model Predictive Control for Autonomous Vehicle Trajectory Tracking	Bohao He, Ling Zheng* (China)
538	Uncertainty-Aware Adaptive Control for Human-Centric Cyber-Physical Indoor Spaces	Zahra Elmi*, Elmi Soheil, Elmi Semira (Turkey)
593	Robust Path Tracking for Vehicles Via Continuous-Time Residual Learning: An ICODE-MPPI Approach	Shugen Song, Wenjie Mei*, Chengyan Zhao (China)
824	Decoupled Initialization-Based Distributed Tube Model Predictive Control for Multi-Robot Systems Coordination	Abdullateef Ogundipe*, Yiwen Chen, Auwal Tijjani Shehu, Michael Defoort (France)
501	Data-Driven Koopman-Based Model Predictive Control for a Three-Tank Hydraulic System	Wilder Steven Hernández Manosalva*, Harrynson Ramirez-Murillo, Duvan Tellez-Castro (Colombia)
417	Data-Driven Identification and MPC of Coupled Tank System Using Bilinear Koopman Realizations and Physics-Informed Neural Networks	Amir Vanegas*, Julio Barón-Velandia, Nelson Leonardo Díaz-Aldana, Duvan Tellez-Castro (Colombia)
608	Multi-Sensor Fusion and Frequency-Domain Analysis for Predictive Maintenance of Industrial Induction Motors	Akash Mastud*, Dhiraj Vaidya, Madhavi Parimi (India)

SESSION V-09: Optimization and Logistics Systems SESSION CHAIRS: Asma Kausar, Syrine Belguith, & Agostino Marcello Mangini		
Paper ID	**Title**	**Authors**
522	Autonomous Intersection Management Platform (AIMP): Metaheuristic Optimization for Traffic Scheduling	Hazim Al-wakad*, Mazen Amr, Ahmed Abdelrahman, Gasser Emara, Kirolous Magdy, Michael Hany, Dalia M. Mahfouz, Omar Shehata (Egypt)
238	Evaluation of Economic and Green Logistics Performance of African Countries through Fuzzy Linear Regression and MCDM Approaches	Zainab Koubaa*, Adnen El Amraoui, Frikha Ahmed, François Delmotte (France)
364	A Case Study of the Heterogeneous Dial-A-Ride Problem in the Airport	Sirine Belguith*, Khalfallah Souleuf (Tunisia)
521	Machine Learning-Based Delivery Time Prediction for Low-Carbon Food Delivery	Ahmad Almasabi, Mariem Belhor*, Omar Alam (France)
815	Smart Low-Carbon Freight Transport: A Comparative Analysis	Chiamaka Anicho-Okoro, Mariem Belhor*, Omar Alam (France)
659	The Cost of Quality in Circular Economy: Balancing AI Investment and Profitability in CRD Waste Management	Niama Yahiaoui*, Julien Trochu, Amin Chaabane, Rim Larbi, Armin Jabbarzadeh (Canada)
442	Design Thinking for Fostering Innovation in Logistics	Luciana Alves Oliveira, Formigoni Alexandre Formigoni, Kelly Cristina Capana*, Vanessa de Cillos Silva, Fabricio Jose Piacente, Eliacy Cavalcanti Lélis, Lucas Daniel Barile, Caio Flavio Stettiner (Brazil)
846	Renewable Energy-Integrated UAV Path Planning for Sustainable and Efficient Medical Supply Delivery in Smart Cities Environments	Fathi Smaili*, Mansour Alharthi Hayed, Fawaz Al Asiri Ali, Hisham Alshamrani Saeed (Saudi Arabia)

SESSION V-10: Neural and Intelligent Systems (Part 1) SESSION CHAIRS: Ivo Petras & Bahadır Catalbas		
Paper ID	**Title**	**Authors**
658	Evolutionary Neural Architecture Search for Bladder Cancer: A Multi-Objective Investigation	Haithem Dahimi, Hifi Mhand*, Saint Fabien (France)
47	Enhancing Multimodal Emotion Recognition with Swin Transformers and Dynamic Weighted Gating for Federated Learning on Edge Devices	Xuan-Phuc Phan-Nguyen, Khoi Tran-Minh, Nga Ly* (Vietnam)

232	TruKAN-RPO: An Advanced Framework for On-Policy Methods for Continuous Reinforcement Learning	Ali Bayeh, Samira Sadaoui*, Malek Mouhoub (Canada)
798	Reinforcement Learning-Based Optimal Nonlinear Control for Magnetic Levitation	Syed Tariq Naqshabandi, Huzaifah Abbas*, Dania Zaman (Pakistan)
257	Beyond Visual Range Missile Evasion with Model-Based Reinforcement Learning	Ahmet Talha Cetin*, Emre Koyuncu (Turkey)
102	Towards Neuro-Symbolic Federated Tree Learning	Andrea Augello*, Stefano Merendino, Alessandra De Paola, Giuseppe Lo Re (Italy)
80	Implementation of Control with Artificial Intelligence Elements in Industrial Control Systems Using High-Performance Computing	Ivo Petras* (Slovakia)
636	Interpretable and Low-Compute Multimodal Glaucoma Screening Using Optic Disc Biomarkers and Clinical Data	Amira Soltani*, Imed Jabri (Tunisia)

SESSION V-11: Computational Intelligence

SESSION CHAIRS: José Alejandro Jaime Vargas, Edmilson Suassuna Da Silva, & Aniket Wattamwar

Paper ID	Title	Authors
253	ELM: An Epidemiological Language Model Via Supervised Reasoning Fine-Tuning on Global Surveillance Data	Aniket Wattamwar*, Sampson Akwafuo (USA)
515	Residual Physics-Informed Neural Networks for Robust Indoor Occupancy Estimation Using Sonar	Diyar Altinses*, Andreas Schwung (Germany)
405	ESG Volatility Forecasting Using LSTM Networks and Hyperparameter Optimization Techniques	Syrine Ferjani*, Boutheina Jlifi, Lamjed Ben Said, Khaled Guesmi, Marc-Arthur Diaye (Tunisia)
612	GA-CDAM: Genetic Algorithm Driven Compact Damage Assessment Model Using Post-Disaster Aerial Images	Iyed Dhahri*, Abdennour Azerine, Mahmoud Golabi, Karim Hammoudi, Lhassane Idoumghar (France)
340	Exact Closed-Form Sensitivity Analysis of Phase and Period for Cyclic Expression Pattern Sequences in Gene Regulatory Networks	Yasuaki Kuroe*, Yoshihiro Mori (Japan)
577	Roadmap for Advancing Tunisian Sign Language Recognition: Lessons Learned from Global Sign Language Systems	Fatma Makhlouf*, Mejri Fethi, Neji Youssef (Tunisia)
296	A Web-Based Decision Support System Based on MAUT to Deal with Partial Information: Selection of Sport Ontologies for Reuse	Alberto Gómez-Jiménez , Marcos Asensio-Hernández , Antonio Jiménez-Martín* (Spain)
408	AutoML-DAFL: A Drift-Aware Federated Learning Framework for Cyber-Physical Aquaculture Water Quality Monitoring	Hassan Sajjad*, Adnen El Amraoui, François Delmotte (France)

SESSION V-12: Intelligent Applications

SESSION CHAIRS: Krisztián Bálint, Naima Mchiri, & Sana Hafeez

Paper ID	Title	Authors
345	APP4FARM, a Project for the Sustainable Use of Resources in Agriculture	Claudio Carnevale*, Alessandra Adessi, Liam O'Faolain, Mohammadmehdi Saberioon, Veronica Sberveglieri, Agnese Bellabarba, Dario Belmonte, Gabriele Biagi, Francesca Decorosi, Sabrina De Nardi, Chinna Devarapu, Estefania Nunez-Carmona, Gabriele Piccoli, Elisabetta Poeta, Sara Raccagni, Lucia Sangiorgi, Venkata Vamsi Bharadwaj Yallapragada (Italy)
159	Bayesian Ensemble Regression for Uncertainty Prediction in Data-Sparse Sensor Calibration	Felix Wittich*, Andreas Kroll (Germany)
298	High-Precision Orange Leaf Disease Detection Using Edge-Optimized Lightweight YOLO nano models	Mohamed Amine Bouallegui*, Imen Saidi, Amine Abadi, David Fofi (Tunisia)

717	Optimal Robust State Feedback Control Using Physics-Informed Neural Networks	Camilo E. Zambrano*, Eduardo Mojica-Nava (Colombia)
835	Analysis of Hydraulic Delays in Cascade Reservoir Systems: A State-Space Control Approach	Filipa N. Nogueira* (Portugal)
224	Design and Analyses of Guidance Algorithms for Contingency Scenario During Powered Descent Flight of Chandrayaan-3	Chiranjib Guha Majumder* (India)
629	Cross-Coupling Effects Mitigation in Triple Active Bridge Converter Using RBFNN-Based Sliding Mode Control	Mohamed Benmadani Debbat*, Khaled Laadjal, Andrés Camilo Henao-Muñoz, Antonio Pepiciello, José Luis Domínguez García (Spain)
653	An Explainable Deep Learning Recommender System Integrating Trust and Tag Information	Malek Ghanem* (Tunisia)

SESSION V-13: Control Engineering Applications
SESSION CHAIRS: Isaac Chairez, Emil Pricop, & Pavlo Tymoshchuk

Paper ID	Title	Authors
696	Revisiting Robust Model Predictive Control of Renewable Energy Communities - a Centralized Intraday Implicit Tube Formulation	Laurent Dewasme* (Belgium)
164	Optimal Control-Based Dosing of Combined Oral Contraceptives Via Pharmacokinetic Modeling	Alessandra Nappini*, Daniela Iacoviello (Italy)
467	FGDWI an Online Feasibility-Gated Waypoint Insertion Policy for Value-Aware ASV Navigation in Forecast Flows	Guy Ludford*, Pablo Borja, Nieves Garcia Valiente, Jake Lewis, Dena Bazazian (United Kingdom)
574	Arccosine Vector Field Guidance for Curvilinear Path Following of UAVs	Sayantan Pal*, Sikha Hota (India)
401	Constrained Trajectory Planning for Wheeled Ground Robots in Unstructured Environments Modelled by B-Spline Approximation	Damien Hoareau, Alexandre Chapoutot (France)
324	Identification of the Control Object Dynamics by Symbolic Regression	Askhat Diveev, Igor Prokopyev (Russia)
219	Weak Pole Placement in Strong Stabilization of LTI SISO Systems	Abdul Hannan Faruqi (India)
192	Hybrid Generative-Discriminative Regression Models for High-Dimensional Fake News Detection	Sana Iftikhar*, Fatma Najar, Nuha Zamzami, Nizar Bouguila (Canada)

SESSION V-14: Combinatorial and Optimization
SESSION CHAIRS: El-Houssaine Aghezzaf, Khadija Bousselmi, & Amel Mansour (Ammele Menseur)

Paper ID	Title	Authors
478	An Efficient Cooperative Scatter Search for the Large-Scale K-Clustering Minimum Biclique Completion Problem	Hifi Mhand*, Salmi Yasmine, Juntao Zhao (France)
480	A Hybrid Scatter Search Algorithm for the Sequencing m-Vector Bin Packing Problem	Dahmani Isma , Hifi Mhand* , Latrem Khadidja (France)
70	Fairness-Aware Energy-Effective Electricity Technician Dispatch Problem	Haifa Zaidi, Sifat E Jahan , Malek Mouhoub* (Canada)
826	Max-Min Knapsack Sharing: Structural Properties and a Fully Polynomial Approximation Scheme	Kheffache Rezika, Hifi Mhand* (France)
859	Infinite-Horizon Optimal Regulator for Linear Stochastic Systems with State-Delay	Nuha Alasmi* , Bujar Gashi (United Kingdom)
686	Optimal Investment in a Multi-Asset Market with Borrowing, Quadratic-Affine Interest Rate, and the Heston Volatility Model	Nuha Alasmi*, Bujar Gashi (United Kingdom)
311	Robust Multi-Objective Dispatch of Hybrid Renewable Energy Microgrids Considering Solar and Wind Uncertainties with Demand Response Integration	Adebayo Dosa*, Oludolapo Akanni Olanrewaju, F. Mora-Camino (South Africa)

SESSION V-15: Embedded Systems

SESSION CHAIRS: David Razafimahefa, Nor Azlan Othman, & Afef Ben Said

Paper ID	Title	Authors
673	Low-Cost Embedded System for PMSG Micro-Generator Synchronization Based on the Kuramoto Model	Adan Rincón Silva, Roberto Rafael Rivera Durón, Jesús Ricardo Sevilla Escoboza, Juan Onofre Orozco López (Mexico)
813	Hardware-Assisted Context Preservation for Deterministic Task Switching in a RISC-V Real-Time Execution Model	Nicolai Iuga, Ionel Zagan, Nicoleta Cristina Gaitan, Vasile Gheorghita Gaitan (Romania)
713	Randomized Kaczmarz EM for Large-Scale State-Space Models	Jaafar Almutawa (Bahrain)
61	Comparative Benchmarking of YOLO-Based Object Detection on Raspberry Pi 3B, 4B, and 5B under CPU-Only Edge AI Deployment	Marcelo Okano, William Ap. Celestino Lopes, Sergio Miele Ruggero (Brazil)
788	Lightweight Dual-Reference Adaptive Change Detection for Robust UAV-Based Surveillance	Kamal Sandeep Karreddula, Alok Kanti Deb (India)
333	Evaluating Auto-Generated Spacecraft Software against a Manually Developed Reference	Youcef Bouziane, Fayçal Bouchiba, Amine Meghabber, Abderrahmane Seddjar (Algeria)
256	Lightweight Embedded Framework for Real-Time Fault Classification and Location in Radial Distribution Networks under Distributed Generation	Mostapha Lemkharbech, Saad Sarih, Zakaria Boulghasoul, Abdelhadi El Bacha, Samira Chabaa (Morocco)
865	Towards Legally Recognized Device Authentication in IoT M2M under eIDAS 2.0	Francesco Buccafurri*, Carmen Licciardi (Italy)

SESSION V-16: Control Theory and Systems

SESSION CHAIRS: Satyavir Singh, Sergio Galeani, & Khushboo Kumari

Paper ID	Title	Authors
60	An Optimal Clutch-Like Control Mechanism for Induction Motors under Active Disturbance Rejection Control	Juan Quecan-Herrera, Rubén Garrido, Hebertt J. Sira-Ramirez (Mexico)
571	Fuzzy Logic Control for Fast-Tracking Gimbals in Velocity Space	Ahmed Aboabdallah, Kareem Aboelmhasen, Ammar Abdelwahab, Ahmed Gaballa, Heba Abokhalil, Abdelrahman Alamrawy, Hamza Frehy, Hanem Gebreel, Mahmoud Khamis, Abdallah Fayez Elashry, Ayman Ali Nada (Egypt)
432	Observer Design for Conformable Fractional Positive Continuous-Time Systems	Dusan Krokavec (Slovakia)
410	Extending Fixed-Point Theory for Neural Field Models	Abdelkader Belhenniche, Maxim Staritsyn, Roman Chertovskih (Portugal)
576	Routh Matrix Algorithm: A State-Space Approach	Jan Jantzen (Denmark)
683	Model Predictive Control for a Bioinspired Regenerative Vehicle Suspension	Lotfi BEJI, Ahmed Chaibet, Kribeche KRIBECHE (France)
647	Adaptive Sliding Mode Learning Control for Nonlinear Interconnected Systems with Chattering-Free Guarantee	Lotfi Chaouech, Moez Soltani, Jaouher Ben Ali, Michael Short, Abdelkader Chaari (Tunisia)
341	An Optimal Control Framework for Personalized Chemotherapy: EKF State Estimation and DDPG Optimization	Matteo Ancona*, Barbara Grosoli, Daniela Iacoviello, Francesco Luzi (Italy)

SESSION V-17: Image Processing

SESSION CHAIRS: Alberto Bottino, Bayan Ahmad, & Genni Fragnelli

Paper ID	Title	Authors
327	Automatic Quantification of Pleural Effusion Volume in Lung Ultrasound: An AI-Based Approach	Alberto Bottino*, Chiara Botrugno , Ernesto Casciaro , Francesco Conversano , Aimè Ekuakille, Nicola Ivan Giannoccaro , Rocco Morello , Sergio Casciaro (Italy)
737	Bio-Inspired Fuzzy Logic–Based Passive Vision Coordination for UAVs	Gonzalo Garcia* , Azim Eskandarian (USA)

139	Compact ResNet18 with Test-Time Adaptation: Balancing Accuracy and Latency for Parkinson's Disease Screening	Maria Valentina Leyba Mesa* , Buket Barkana (USA)
329	GroupTrack: A Feature-Aware Enhanced Group Tracking Method	minjin zhao , Luheng Cui , Shupeng Guo , Chujun Liu , yuxuan Jiang , Yan Ding* (China)
383	Multimodal Fusion of 3D CNN Features and Radiologist Attributes for Lung Nodule Malignancy Classification	Briana-Alexia Banescu , Loretta Ichim , Dan Popescu*(Romania)
825	Fine-Tuned Hybrid EfficientNetB2–ViT-B16 Architecture Model on fMRI Brain Data for ASD Classification	Fedia Bahloul* , Raouia Mokni , Monji MONJI KHERALLAH (Tunisia)
791	Dual-View Vision Transformer with Cross-Modal Memory for Radiology Report Generation	NOUREDDINE LAMRED* , Norhene GARGOURI , Nesrine Charfi (Tunisia)
840	YOLO Based Object Detection in SAR Images: Embedded Implementation and Performance Analysis	Emirhan Küçük, Muhammed Kadir Aksoy, Mustafa Kabak, Burak Catalbas, Ali Alp Akyol, Bahadır Catalbas* (Turkey)

SESSION V-18: Energy Control and Power Systems

SESSION CHAIRS: Denis Sidorov, Georg Frey, & Hafte Tkue Geberekidan

Paper ID	Title	Authors
528	Seasonal-Adaptive Integral Sliding Mode Controller Based MPPT: A Case Study of Addis Ababa Area	Hafte Tkue Geberekidan, Mengesha Mamo, Oliver Michler, Worke Woldesemayat, Dereje Shiferaw, Robert Richter, Sven Grunwald (Ethiopia)
755	An LS-Based Improvement of Conventional MPPT Techniques for Photovoltaic Systems under Varying Conditions	Borni Boughdiri, Mohamed Hechmi Bouazizi, Ali Hmidet (Tunisia)
841	Saturation-Aware Robust Optimal Operation Control of Microgrids Based on Minimum-Regret Optimization	Ujjwal Pratap, Steffen Hofmann (Germany)
871	Severity Classification of Progressive Rotor Electrical Unbalance in Wind Turbine DFIGs Using Deep Temporal Learning	Mohamed Channouf (Tunisia)
586	Enhanced Proton Exchange Membrane Fuel Cell Parameter Estimation Using Birds of Prey-Based Optimization	Lotfi Gafsaoui, Ahmed Jeridi, Abderrahmen Zaafoouri (Tunisia)
519	Fractional-Order Grey Wolf Optimization for Black-Box Identification of Furuta Pendulum Systems	Bilel Kanzari, Adel Taieb, Achraf Jabeur Telmoudi, Abdelkader Chaari (Tunisia)
563	Design and Performance Optimization of an Inductive Power Transfer Converter for Enhanced Electric Scooter Micromobility Charging	Bilel Touaiti (Tunisia)

SESSION V-19: Scheduling and Optimization

SESSION CHAIRS: Zeineb Ben Houria, Atakan Sahin, & Khadija Bousselmi

Paper ID	Title	Authors
303	Self-Adaptive Iterated Greedy Algorithm for Two-Stage Hybrid Flow Shop with a Cumulative Machine	Ahmed Missaoui, Janis Sebastian Neufeld, Barry O'Sullivan (Ireland)
623	The Potential and Limits of LLMs As Evolutionary Operators for Electric Vehicle Charging Scheduling	Karim Kamel, Abdennour Azerine, Mahmoud Golabi, Lhassane Idoumghar (France)
270	Reinforcement Learning–Based Operational Optimization of a Hybrid CSP–Wind System with Thermal and Battery Energy Storage	Monzer Khalid, Ahmad Al Hanbali, M. AlDurgam, A. Ghaithan (Saudi Arabia)
632	Real-Time Distributed Model Predictive Control with Gaussian Process Learning for Planar Vehicle Platooning	Lorenzo Laganà , Andrea Wrona, Emanuele De Santis* (Italy)
705	A Lean-Guided Micro-Credential Framework for Optimizing Decision Support and Process Efficiency in Public Governance	Edmilson Suassuna da Silva*, Alexandre Beraldi Santos, Robisom Damasceno Calado (Brazil)

598	Integrated Scheduling with Equipment Health, Maintenance, and Retroactive Quality Control in Semiconductor Manufacturing with Fixed Sequence	Mourad Terzi*, Claude Yugma (France)3
182	Stochastic Bi-Objective Optimization Model for a Single-Period Sustainable Supplier Selection and Ordering Problem	Rima Cheaytou , Sadeque Hamdan , Ali Cheaitou* (United Arab Emirates)

SESSION V-20: Optimization Methods

SESSION CHAIRS: Smail Bachir, Syrine Belguith, & Niama Yahiaoui

Paper ID	Title	Authors
552	Energy-Aware Flexible Flow Shop Scheduling with Solar PV, Battery Storage, and Demand Response: A Genetic Algorithm Approach	Joyce Mhanna* , Hajar Nouinou, Simon Caillard , David Baudry (France)
687	Stochastic Bifurcation in Resource-Constrained Networks: Quantifying Soft-Edge Volatility (SEVI) during Monte Carlo Simulation	Venkata Mukesh Chadaram* (Canada)
575	Dynamic Integrated Production and Delivery Scheduling with Electric Vehicles: A Hybrid Ant Colony System Approach	Rachida BEN CHABANE*, Simon Caillard , Hajar Nouinou , Mourad ZGHAL (France)
611	Improved Modeling and Genetic Algorithm for Job Sequencing and Tool Switching on Non-Identical Parallel Machines	Khaled Khayati*, Khadija Hadj Salem , Benoit Lardeux, SAFA BHAR LAYEB , Zied jemai, Maher Jridi (France)
832	Distributed Control and Coordination of Multi-Robot Trajectories Modeled by Timed Petri Nets	MOHAMAN GONZA, Rabah Ammour* , Isabel Demongodin (France)
482	Evaluating the Economic and Financial Efficiency of Sugar-Energy Companies Using Financial Ratios and Data Envelopment Analysis	Fabricio Jose Piacente, Vanessa de Cillos Silva, Lucas Daniel Barile*, Eliacy Cavalcanti Lélis, Formigoni Alexandre Formigoni, Luciana Alves Oliveira, Kelly Cristina Capana, Caio Flavio Stettiner (Brazil)
45	Single Model, Multiple Climates: Applying Modified Levenberg Marquardt Algorithm to Meteorological Time-Series Prediction	Cihat Nusret Uğurlu*, Mehmet Önder Efe (Turkey)

SESSION V-21: Signal Processing

SESSION CHAIRS: David Razafimahefa, Jaafar Almutawa, & Maria V. Leyba-Mesa

Paper ID	Title	Authors
697	Comparing the Neural and Behavioral Outcomes of Fine and Gross Motor Language Intervention in Children with DLD: An Exploratory Study	Bayan Ahmad*, Rachael Brimm , Mary Sill , Kristen Crish, Buket Barkana (USA)
367	Cross-Domain Drone Audio Classification: A Comparative Domain Transfer Study	Kalpana Algotar*, Rita Chattopadhyay , Srividya Bansal, Ajay Bansal (USA)
371	A Deep Spatio-Temporal Model for Decoding Simultaneous and Continuous Hand Movements from Surface Electromyography	Sukrit Ghosh, Yashkrit Singh , Krishan K Sah , Garima Bhandari , Jyotindra Narayan* (India)
759	Portable Device for Angular Measurement and Muscle Activation of the Knee in the Sagittal Plane	Eduardo Cuti , Victoria E. Abarca* , Dante A. Elias (Peru)
661	Acoustic DoA Estimation of Gunshots Via ILS-Based Data Association in Nearly Simultaneous Multi-Shooter Scenarios	Weslley G. Barboza , José Antonio Apolinário Jr. , Felipe A. Caetano Bastos, Antonio L. L. Ramos* (Norway)
285	Guided Wave Detection and Monitoring of Progressive Corrosion using Continuous Waves in Steel Pipelines with Macro Fiber Composite Transducers	Md Hasibur Rahman Kazi, Mohd Fairuz Shamsudin*, Fahad Bin Zahid (Malaysia)
488	Outreach Activities for Introducing Fundamental Control Notions Using an Educational Robot	Irina Bran, Omar Hamou-Tahra, Tomas Jeria, Hadrian Lorand, Aarsh Thakker, Cristina Stoica*, Lionel Husson (France)

SESSION V-22:Robotics

SESSION CHAIRS: Pierre-Philippe Robet, Kiran Kumari, & Jose Barata

Paper ID	Title	Authors
868	Adaptive Global Navigation for Sidewalk Robots: Integrating OSM Lanelets with Real-Time Pavement Segmentation-Based Correction	Abhishek Nannuri, Mohamed Abdeltawab , Swaraj Tendulkar* , Frank Schrödel (Germany)
378	Nonlinear Boost Compensation for PD-Controlled Self-Balancing Robot Stabilization	Steven Tawfik* , Mohamed Gouda Alkalla , Ayman Ali Nada (Egypt)
439	Reinforcement Learning for Ballbot Balancing	Giovanni Iacca* (Italy)
700	A Data-Driven Quasi Inverse Static Model of a Parallel Continuum Robot	Seraphima Hanna* , Mansour Ayman , El-Naggar Soliman , Haitham El-Hussieny (Egypt)
209	Learning Dynamically Stable Ultra-Slow Gait in Quadruped Robots	Alex Li Noce* , Poramate Manoonpong, Luca Patané, Paolo Arena (Italy)
284	Trajectory-Invariant Nonlinear Model Predictive Control for Quadrotor Tracking: Comparison with Optimized PD Control7	NeelKumar Ahir , Jyotindra Narayan , Garima Bhandari* (USA)
692	Theoretical and Computational Analysis of Airflow-Induced Leaf Collection Mechanism in a Selective Tea Harvesting End-Effector	Sharamjeet Shaurya , Arjun Agarwal , Dhirendra Kumar Verma Verma*, Kamal Narayan Baruah , Jyotindra Narayan (India)

SESSION V-23: Intelligent Control

SESSION CHAIRS: Isaac Chairez, Chiranjib Guha Majumder, & Jérôme Cieslak

Paper ID	Title	Authors
625	A 6-DOF Deep Reinforcement Learning Architecture for Autonomous Debris Capture and Orbit Transfer	Federico Falconi* , Kirolos Romany Anwar Kamel, Danilo Menegatti, Francesco Delli Priscoli (Italy)
490	Uncertainty-Aware Emotion Recognition: A Hybrid Framework Coupling Bayesian Transformers with Interval Type-2 Fuzzy Logic Hybrid Bayesian Transformer and IT2FIS for Emotion Recognition	Afef Ben Said* (Tunisia)
874	GenEdu: Personalized Learning with Retrieval-Augmented Generative AI and Dual-Layer Evaluation	Kalthoum Rezgui* , Frigui Roua (Tunisia)
131	Real-Time Surrogate Modeling of Tracked Vehicle Terramechanics Via Run-Level Learning and Deterministic Verification	Hüseyin Umutcan Şanlı* , Mehmet Önder Efe (Turkey)
354	Toward an Augmented Target-Controlled Infusion System for an Automated Anesthesia with Hypnosis and Analgesia Objectives	Pablo Santiago Rivadeneira , Jérôme Cieslak* , Ariana Gutiérrez , David Gucik-Derigny , David Henry , Agnès Drochon , Claire Oddos, Lucas Martin , Bogdan NICOLESCU-CATARGI , Alexandre Ouattara (France)
548	Considerations on Operator Behavior Modeling in I&C System Model Checking	Antti Pakonen*(Finland)
850	Event-Triggered Stochastic Synchronization of Reaction-Diffusion Neural Networks with Deception Attacks	Keerthana S , Manivannan A* (India)
669	Normal Behavior Modeling for Wind Turbine Anomaly Detection with Physics-Constrained Semi-Supervised Learning	Mohamed Abdel Wedoud*, Sidi Biha, Boudy Bilal, Moussa Boukhnifer (Mauritania)

SESSION V-24: Control Applications

SESSION CHAIRS: Claudio Carnevale, Nicola Ivan Giannoccaro, & Mohammed B. Debbat

Paper ID	Title	Authors
471	System Identification and Control of a Wind Turbine System Using Model Predictive Control	Juan Diego Molina Gonzalez* , Matilde Santos Peñas , Jesus Enrique Sierra-Garcia(USA)
682	Tensor Network Methods for Advection-Diffusion-Reaction Systems Using Quantum-Inspired Representations	Nahid Dehaghani* , Rafael Wisniewski , A. Pedro Aguiar (Denmark)
508	Stabilizing Adaptive Performance Control of Mobile Systems with Guaranteed Collision Avoidance	Marcel Rüger*,Olaf Stursberg (Germany)

848	Analysis of Event-Based Camera Signals for Safety Integration to IEC61499	Tom LADUNE, Maxime Colas , Alexandre Philippot* , Bernard RIERA , François GELLOT , Pascal Hampikian(France)
186	Fair Charging under Grid Constraints: A Receding-Horizon Game Approach for Electric Vehicle Charging Parks	Benjamin Herrn*, Felix Krabbes , Bernd Juris, Rick Vosswinkel (Germany)
486	Analytical Event Count Prediction in Monotonic Event-Triggered Control Systems	Karel Walter Gómez Orellana* , Cristhian Joel Apaza Flores, Jorge Antonio Nava Amador (Bolivia)
319	Photovoltaic Power Forecasting: Benchmarking Deep Learning Architectures for Scenario-Based Production Scheduling	Assiya Zahid, Lamia Hammadi, Patrice Leclaire, Roberta Costa Affonso, Abdessamad El Bellouti (Morocco)
806	Binocular Visual Tracking Control Using Feedback Linearization	Bijoy Ghosh*, Bhagya Athukorallage (USA)

SESSION V-25: Neural and Intelligent Systems (Part 2)

SESSION CHAIRS: Bahadır Catalbas, Rahib Abiyev, & Kamal Sandeep Karreddula

Paper ID	Title	Authors
194	Efficient periodicity detection in irregular alarm event time series: application to building management system alarms	Sylvain Marié* , Mathias Verdière , Pablo Knecht , Benjamin Norman (France)
668	Interpretable RUL Prediction Via Hybrid Deep Evidential Clustering for Aero-Engine Health Monitoring	Mohamed-Ali Ben Azzouna, Safa Ben Ayed, Lilia Rejeb (Tunisia)
495	Design of Switching Attacks with Physics-Informed Neural Networks	Alex Parri , Qiuhan Cao , Francesco Liberati* (Italy)
863	High-Accuracy and Robust SOC Estimation Using a PSO-Optimized AFCM–RRBF Hybrid Model	Donya Souidi, Jaouher chrouta , Achraf Jabeur Telmoudi* (Tunisia)
533	On the Effectiveness of Physics-Informed Fourier Neural Operators for Holographic Phase Retrieval	Mohammad Saim Khan, Stéphane Cuenat , Rémi Kieber , Maxime Jacquot , Raphaël Couturier* (France)
714	Evaluation of NAP-Based Approaches for Monitoring Neural Network Classifiers	Abderraouf Boussif* , Islem Touati (France)
136	WindSense: Low-Cost IoT Sensing System for High-Granularity Wind Monitoring in Electric Distribution Networks	Alexandre Barcelos, Antunes , Angelo Oliveira , Fabiano Bhering*, Murillo Ferreira dos Santos , Paolo Mercorelli (Brazil)
387	Information-Geometric Fault Detection for Non-Stationary 5G Channel State Information Streams	kshitij gaikwad*,shubh arekar,Shashank Shekhar Verma,ADITI RAMTEKE,tejal jadhav,Madhavi Parimi,R N Awale (India)

SESSION V-26: Intelligent Communication Systems

SESSION CHAIRS: Jinfeng Li, Hayat Bihri, & Sana Hafeez

Paper ID	Title	Authors
760	Electromagnetic Impacts of Interface Discontinuity in Geometry and Material between Tunable and Non-Tunable PCBs for 79 GHz Liquid Crystal Phase Shifters in Joint Communication and Sensing	Jinfeng Li* (China)
325	Bilingual Semantic Correspondence through Knowledge Distillation and Encoder Combination	Mouna Khelifi* , Samar Bouazizi , HELA Ltifi (Tunisia)
180	Active Log-Periodic Dipole Antenna with Integrated Power Amplifier–Coupler for S-Band Duplex Operation	Ala Eddine Chaabani* , Mejri Fethi , Tijeni Delleji (Tunisia)
235	Semantic Interoperability in Smart Cities: A Distributed Architecture Based on Ontologies, Plug-And-Play AI, and BlockDAG	Tatiana Caballero, Derlis Orlando Gregor Recalde* (Paraguay)
109	Robust Indoor Localisation for Swarm UAVs: An Adaptive Exponential Weighted Centroid Approach	Ghulam E Mustafa Abro*, Sana Hafeez, Micahel Mackay , Achraf Jabeur Telmoudi (Denmark)
185	Low-Cost Automated Antenna Radiation Pattern Measurement System Based on Arduino and Raspberry Pi	Fedi Mejri* , Mejri Fethi , Nadia Fezai , Tijeni Delleji (Tunisia)

618	A Digital Twin-Based Deep Reinforcement Learning Framework for Adaptive Scheduling in 5G/6G Networks	Naima Mchiri* , Zagrouba Rachid , Zagrouba Ezzeddine (Tunisia)
595	Radar-Based CNN Recognition of Gesture Primitives for SignWriting Educational Feedback	Fatma Makhlouf*, Fethi Mejri, Neji Youssef (Tunisia)

SESSION V-27: Control and Optimization Methods

SESSION CHAIRS: Than Le, Mario Spirito, & Agostino Marcello Mangini

Paper ID	Title	Authors
312	A Comparison of Automatic Hand-Eye Calibration Methods for Vision-Guided Collaborative Robots	Fernando Braga*, Felipe Gomes, Wesley Rodrigues Oliveira (Brazil)
141	Dual-Side Control for Coordinated Attack Detection in Federated Learning	Hanen Hamdani, Benmohamed Emna*, Hela Ltifi (Tunisia)
198	Hybrid Computed Torque Control and Soft Actor-Critic Framework for Sample-Efficient Robotic Manipulator Control	Anas Alsalool, Mona Alsbakhi*, Majed Tabash, Mohammed Lubbad, Asmaa Sbaih (Palestine)
645	Hybrid Riccati–IMC Based Motor Control on InstaSPIN-FOC Platform: A Geometric Control Approach	Yukta Dethe*,Vidnya Gosavi (India)
738	Optimal Inventory Pressure Control for the High-Frequency Market Making	Aleksandr Rzhevkin, Vadim Azhmyakov*, Luz Adriana Guzman Trujillo (India)
517	A PID Tuning Strategy for Minimizing Energy Consumption in Quadrotors	Paraj Ganchaudhuri*, Chayan Bhawal (India)
151	Experimental Evaluation of Control Strategies for an IoT-Enabled Solar Thermal System	Fariba Moghaddam* (Switzerland)
513	Reinforcement Learning for Synchronization Analysis of Biological Rhythms	Ojashwini Dubey*, Palak dwivedi, Tiasha Roy, Manjeet Rege, Shyam Krishan Joshi, Hemachandran K, Raul Rodriguez (India)

SESSION V-28: Operational Research & Supply Chain Management

SESSION CHAIRS: Denis Sidorov, Adrian Guel, & Roman Chertovskih

Paper ID	Title	Authors
309	Eliminating Binary Variables in Battery Scheduling: LP Reformulations for Energy Arbitrage	Denis Sidorov*, Aliona Dreglea (Russia)
810	A Rule-Based Methodology for Generating and Prioritizing Feasible Reorchestration Scenarios in Manufacturing-As-A-Service	Farah Abdoune, Catherine Da Cunha*, Catherine Cunha, Mohamed Osman, Basarir Feza, Halit Filik, Mihai Noaptes, Celik Ahter, Artan Ulas (France)
567	Impact of Grid Carbon Intensity on the Multi-Objective Optimization of a PV-Battery-Hydrogen Hybrid Energy System	Aqib Khan*, Mathieu Bressel, Arnaud Davigny, Dhaker Abbes, Belkacem Ould Bouamama (France)
873	Multi-Objective Deterministic Ambulance Routing: Exact MILP Benchmarking and Metaheuristic Optimization	Ammele Menseur, M.C. Marouene Chaieb*, Issam Nouaouri, S.K. Saoussen Krichene (Tunisia)
310	Scheduling with Minimum Unproductive Energy in Job-Shops	Oludolapo Akanni Olanrewaju, Adebayo Dosa, Fabio Krykhtine, Rafael Lima de Carvalho, F. Mora-Camino* (France)
390	MILP and CP Approches for Human-Robot Collaborative Flow-Shop Scheduling	Dahibou Fall* , Meriem TOUAT, Haoxun CHEN (France)
532	Elite Trajectory Exploration for Pareto Front Approximation in Dynamic Bin Packing	Hifi Mhand*, Boulebene Sabrin (France)

SESSION P-55: Advanced Methods in Control

SESSION CHAIRS: Marco Arteaga & Stefano Radrizzani

Paper ID	Title	Authors
764	Impact of GNSS Output Frequency and Antenna Position on Vehicle Modeling in Motorcycle Localization	Stefano Radrizzani*, Giorgio Riva, Giulio Panzani (Italy)

732	Tensor Train Based Explicit Multilinear Modeling and Control of Heating Systems	Jithin Cherian*, Enrico Uhlenberg, Harshith Gowda Shakaladevanapura Maregowda, Leandro Samaniego Vallejos, Torben Warnecke, Gerwald Lichtenberg (Germany)
189	Comparative Analysis of Neural-Adaptive and Neuro-Sliding Control Strategies for Vibration Attenuation in Flexible Structures	Jesús Alejandro Díaz Hernández, Rita Q*. Fuentes-Aguilar, Javier Ruiz-León (Mexico)
506	Model-based Database Generation for Traffic Management Systems	Marijn Minkenberg*, Jeroen Johannes Verbakel, Joanna Maria Van de Mortel-Fronczak, J.E. Rooda (Netherlands)
90	On the fixed-time control of systems with mismatched perturbations: An application to Quadrotor Unmanned Aerial Vehicles	Marco A. Arteaga*, Javier Pliego Jimenez, Emmanuel Moulay, Michael Defoort (Mexico)
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551	Distributed Minimum-Time Optimal Control for Lane-Free CAVs Intersection Crossing	Ebubekir Pinar*,Nader Meskin,Arash M. Dizqah (United Kingdom)
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212	Hybrid Deep Learning and First-Principles Model for Predictive Control of Solar Direct Steam Generation	Dibyajyoti Baidya*, Ashutosh Kumar Singh, Mani Bhushan, Sharad Bhartiya (India)
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SESSION CHAIRS: Krisztián Bálint & Imen Jegham

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SESSION CHAIRS: Nhan Quy Nguyen & Yassine Ouazen

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132	An Explainable Hybrid Convolutional Neural Network for NO2 Concentration Forecasting in Milan	Gabriele Piccoli*, Sara Raccagni, Claudio Carnevale, Sabrina De Nardi (Italy)

607	Prediction of EV Energy Consumption through a Hybrid Modeling Framework Involving Use of Machine Learning	Fatih Furkan Dogan*, Muhammed Cavus (Turkey)
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537	Identification and Adaptive Control Strategy for Saturated Wound Rotor Induction Motors	Francis A. Okou*, Lauhic Jean Marie Ndong Mezui, Dieudonne Ekang, Rachid Beguenane (Canada)
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