



PCC2026

22nd Polish Control Conference

Poznan University of Technology
1-3 July 2026, Poznań, Poland



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Conference under auspices of Committee of Automatic Control and Robotics of the Polish Academy of Sciences (co-organized with funds from the Polish Academy of Sciences)



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Foreword

Welcome address from the General and Program Chairs

It is our pleasure to present the final program of the 22nd Polish Control Conference (PCC 2026), organized by the Institute of Automatic Control and Robotics (IAR) in cooperation with the Fundacja na Rzecz Rozwoju Politechniki Poznańskiej at the Poznan University of Technology in Poznań, Poland, under the auspices of the Automatic Control and Robotics Committee of the Polish Academy of Sciences.

The Polish Control Conference, the most important triennial event for the Polish automatic control community, evolved from the National Control Conference first held in 1958 in Warsaw and hosted in Poznań only once, in 1974. Since 2020, PCC has been an international event, supporting broader dissemination of Polish research achievements and collaboration with the worldwide control community. After 52 years, the conference returns to Poznań in its international PCC format.

Out of 128 submitted papers, 102 original contributions have been selected for presentation following a rigorous peer-review process, with an average of 2.7 reviews per submission. Among the accepted papers, 31 have got the corresponding authors affiliated with institutions outside Poland, representing 16 countries. The technical program consists of 27 sessions organized in three parallel tracks, including 13 special sessions, two of which are held under the auspices of the Space Research Center of the Polish Academy of Sciences.

Each conference day begins with a plenary lecture delivered by one of the following distinguished speakers: Prof. Antonella Ferrara from the University of Pavia, Italy, Prof. Silvère Bonnabel from the Mines Paris – PSL, France, and Prof. Paweł Skruch from the AGH University of Kraków, Poland.

A special highlight of the program is the two-part tutorial *Stock Trading Via Control-Theoretic Methods with Suggestions for Research and Applications*, delivered by Prof. B. Ross Barmish from the University of Wisconsin –Madison, USA.

The 22nd PCC 2026 is technically co-sponsored by the IEEE Control Systems Society. Financial support has been provided by the Polish Academy of Sciences and our industrial sponsors: EDU4Industry and KUKA Polska. We express our sincere gratitude for their support.

We would like to thank all the authors, reviewers, members of the Scientific Program Committee and the Organizing Committee, as well as the Local Arrangements Staff for their contribution and/or support to the PCC 2026 conference.

We hope that the 22nd PCC 2026 will provide an excellent forum for fruitful scientific discussion, exchange of ideas, and new collaborations. Welcome to the PCC 2026 and to the Poznan University of Technology!

Maciej Marcin Michałek
General Chair of PCC 2026

Dariusz Pazderski
Program Chair of PCC 2026

Technical Program at a Glance

Time	Room	Day 1 – Wednesday, July 1	Room	Day 2 – Thursday, July 2	Room	Day 3 – Friday, July 3	
08:00 09:00		Registration					
09:00 09:10	1	Welcome address	1	Address by the Committee Chairs	1	Announcements	
09:10 10:00	1	Plenary lecture: Prof. Antonella Ferrara	1	Plenary lecture: Prof. Silvère Bonnabel	1	Plenary lecture: Prof. Paweł Skruch	
10:00 10:30	053	Coffee break	053	Coffee break	053	Coffee break	
10:30 11:50	7	A1.1: Analytical Methods in Nonlinear Control I (33, 105, 79, 64)	7	B1.1: Analytical Methods in Nonlinear Control II (48, 100, 128, 143)	7	C1.1: Recent Developments in Finite-/Fixed-Time Stability and Stabilization (94, 44, 63, 89)	
	8	A1.2: ADRC: Between Principles and Practice I (57, 50, 52, 60)	8	B1.2: ADRC: Between Principles and Practice II (84, 113, 115, 134)	8	C1.2: ADRC: Between Principles and Practice III (124, 118, 139, 130)	
	9	A1.3: Iterative Learning and Repetitive Control for Industrial Systems (28, 123, 71, 142)	9	B1.3: Navigation and Control of Space Robots (95, 120, 149, 150)	9	C1.3: State Estimation and Observers (125, 146, 86, 47)	
11:50 12:20	053	Coffee break	053	Coffee break	053	Coffee break	
12:20 13:40	7	Tutorial: Stock Trading Via Control-Theoretic Methods – Research and Applications I	7	Tutorial: Stock Trading Via Control-Theoretic Methods – Research and Applications II	7	C2.1: Fuzzy Rules Design and Applications (122, 73, 75, 110)	
	8	A2.2: High-Level Control and Task Scheduling (66, 68, 136, 147)	8	B2.2: Constrained Control with Control Barrier Functions (77, 49, 97, 144)	8	C2.2: Automation and Robotics for Environmental and Agriculture Applications (116, 119, 96)	
	9	A2.3: Adaptive Control (99, 148, 62)	9	B2.3: Modeling and Identification (87, 103, 46, 104)			
13:40 14:30	053	Lunch	053	Lunch	053	Lunch	
14:30 16:10	7	A3.1: Recent Issues in Control Theory I (26, 37, 70, 111, 133)	7		7	C3.1: Recent Issues in Control Theory II (34, 51, 55, 108, 126)	
	8	A3.2: Machine Learning Methods for Nonlinear System Identification (22, 42, 31, 32)	8	B3.2: Control and Navigation of Multi-Vehicle Systems (53, 38, 39, 74, 107)	8	C3.2: Sensing and Control in Soft Robotics (23, 78, 132, 141)	
	9	A3.3: Diagnostics and Signal Processing (36, 45, 76, 40, 131)	9	B3.3: Process Modeling for Diagnostics and Control (85, 138, 43, 109, 140)	9	Meeting of the PhD-Students Contest Jury	
16:10 16:40	053	Coffee break		Meeting of the Automatic Control & Robotics Committee of the Polish Academy of Sciences (Room 7)	053	Coffee break	
16:40 18:20	7	A4.1: Stabilization of Mechanical Systems (72, 81, 121)	7			7	PhD-Students Contest Award Ceremony
	8	A4.2: Autonomy and Control in Robotics (106, 30, 93, 24)	8			7	Closing address
	9	A4.3: Automated Perception and Vision (92, 101, 61, 54, 58)	9			Farewell party	
20:00 22:30		Welcome reception		Banquet			

Detailed Technical Program – DAY 1 (Wednesday, July 1, 2026)

08:00-09:00	Registration (registration desk - ground floor)
09:00-09:10	Welcome address (Room 1)
09:10-10:00	Plenary Lecture (Room 1) Multi-Scale Road Traffic Control with Connected and Automated Vehicles by Prof. Antonella Ferrara (University of Pavia, Italy) Chair: <i>Dariusz Pazderski</i>
10:00-10:30	Coffee break (Room 053)
Parallel block A1	A1.1 Special Session Analytical Methods in Nonlinear Control I (Room 7) Session Chair: <i>Witold Respondek</i>
	10:30-10:50 Stability Enhancement and Time Finiteness for Robust Systems (V.I. Korobov, K.V. Sklyar, O.S. Vozniak)
	10:50-11:10 Sufficient Conditions for Mechanical Feedback Linearization of Euler-Lagrange Systems Underactuated by One Control (M. Nowicki, M. Drązkowska, W. Respondek)
	11:10-11:30 Analysis of Nonlinear Delay Differential Equations in Banach Spaces with Impulsive Control (B. Wasilewski, P. Polak)
	11:30-11:50 Frequency-Domain Analysis of Controlled Euler–Bernoulli and Timoshenko Beams with Attached Masses (A. Zuyev, J. Kalosha)
	A1.2 Special Session ADRC: Between Principles and Practice I (Room 8) Session Chair: <i>Rafał Madoński</i>
	10:30-10:50 Active Disturbance Rejection Control for a Class of Linear Systems with Differential Inputs (K. Stebel, R.-C. Roman, R.-E. Precup, S. Brzeziński, P. Nowak)
	10:50-11:10 Vision-Based Backstepping ADRC for Path Following of an Unmanned Tracked Vehicle with Curvature-Dependent Velocity Scheduling (M. Stanković, S.-B. Amokrane, R. Madoński)
	11:10-11:30 Active Disturbance Rejection Control – Sliding Mode Control and Model-Free Control – Sliding Mode Control for Servo Systems (R.-C. Roman, R.-E. Precup, K. Stebel)
	11:30-11:50 Downgrading ADRC to a Glorious Proportional Controller (G. Herbst)
	A1.3 Special Session Iterative Learning and Repetitive Control for Industrial Systems (Room 9) Session Chair: <i>Krzysztof Patan</i>
	10:30-10:50 Data-Driven Set-Point Learning Control Design for Piezoelectric Positioning Systems with Unknown Dynamics Subject to Hysteresis Nonlinearity (Y. Feng, S. Hao, T. Liu, W. Paszke)
	10:50-11:10 Iterative Learning Control of Airfoil using COMSOL (P. Balik, M. Patan)
	11:10-11:30 Experience Transfer-Based Iterative Learning Control of Non-Affine Nonlinear Systems for Trajectory Switching (F. Chen, H. Tao, Z. Zhuang, C. Liu, W. Paszke, E. Rogers)
11:30-11:50 Prediction-Based Iterative Learning Control of a Thermophotovoltaic System under Distributed Data Exchange (K. Klimkiewicz, M. Patan, K. Patan)	
11:50-12:20	Coffee break (Room 053)
Parallel block A2	Tutorial Session 12:20-13:40 Stock Trading Via Control-Theoretic Methods – Research and Applications I (Room 7) Prof. B. Ross Barmish (University of Wisconsin, Madison, USA)
	A2.2 Regular Session High-Level Control and Task Scheduling (Room 8) Session Chair: <i>Andrzej M.J. Skulimowski</i>
	12:20-12:40 Max-Plus Predictive Tree Approach to AGV Task Scheduling (D. Zaborniak, P. Kasza, M. Pazera, M. Witczak)
	12:40-13:00 Data-Driven Approach for Modelling SBR Cycles as Jobs in a Task Scheduling Framework (T. Ujazdowski, R. Piotrowski)
	13:00-13:20 Artificial Intelligence for the Development and Operation of Automated Assembly Systems (M. Pazera, R. Stetter, M. Witczak, Ł. Hładowski, B. Sulikowski)
	13:20-13:40 Fostering the Development of Knowledge in Autonomous Decision-Making for Intelligent Robotic Systems (A.M.J. Skulimowski, F. Iskra)
	A2.3 Regular Session Adaptive Control (Room 9) Session Chair: <i>Ewa Niewiadomska-Szynkiewicz</i>
	12:20-12:40 Design and Experimental Validation of a Hybrid Deep Learning Controller for Electrohydraulic Servo Drives (J. Możaryn, B. Guś, A. Winnicki)
	12:40-13:00 Adaptive Motion Control Using Modified LuGre Model of Friction (M. Jastrzębski, J. Kabziński)
13:00-13:20 Adaptive Model Predictive Control of an Electro-Hydraulic Servo Drive with Online Neural Model Training (B. Guś, E. Niewiadomska-Szynkiewicz)	
13:40-14:30	Lunch (Room 053)

Parallel block A3	A3.1 Special Session	Recent Issues in Control Theory I (Room 7) Session Chair: <i>Krzysztof Oprzędkiewicz</i>
	14:30-14:50	Numerical Analysis of an Initialized Fractional Order Dynamic System Estimated by the FOBD Approximation (K. Oprzędkiewicz)
	14:50-15:10	Tank Gun Stabilization (M. Szelest, K. Sapieja)
	15:10-15:30	Chattering-Free Terminal Sliding Mode Control of Chua's Chaotic Circuit (P. Skruch, S. Mobayen, D. Marchewka, M. Długosz, W. Mitkowski)
	15:30-15:50	Stabilization of Discrete-Time Linear Switched Systems with Time-Dependent Switching via Convex Optimization (K. Borawski)
	15:50-16:10	Tuning a Robust Fractional PID Controller of an Air Heater Using Bayesian Optimization (W. Bauer)
	A3.2 Special Session	Machine Learning Methods for Nonlinear System Identification (Room 8) Session Chair: <i>Grzegorz Mzyk</i>
	14:30-14:50	Classes of Cyclostationary Input Processes With Examples in Nonlinear System Identification (G. Maik)
	14:50-15:10	Nonlinear System Modeling with Nonasymptotic Guarantees – a Latent Structure Perspective (K. Kowalczyk, P. Wachel)
	15:10-15:30	Sparse Preestimation-based Tracking of Time-varying Volterra Models (A. Gańcza)
	15:30-15:50	Efficient Identification of Wiener Systems by Decomposition and Alternating Updates (G. Mzyk)
	A3.3 Regular Session	Diagnostics and Signal Processing (Room 9) Session Chair: <i>Jarosław Figwer</i>
	14:30-14:50	A Novel Approach to Design of Active Noise Control Systems (J. Figwer)
	14:50-15:10	Comparison of Fault Distinguishability Using Consistency-Based Reasoning with Binary and Trivalent Diagnostic Signals (J.M. Kościelny, K. Zakroczyński)
	15:10-15:30	Inter-Patient Evaluation of Diffusion-Based ECG Denoising Under Standardized Noise Types (S. Šimenas, D. Klepachevskiy, V. Medvedev, P. Treigys, Ž. Abramikas, J. Bernatavičienė)
15:30-15:50	Predictive Maintenance with Failing Sensors of Internal Combustion Engines (D. Kakimbekov, K. Fathi, M. Ristin, T. Kleinert, H. Wernher van de Venn)	
15:50-16:10	Statistical Characterization and Measurement Uncertainty of Correlated Quantities in Potentiometric pH Sensing: A Comparative GUM and Monte Carlo Study (A. Bantu, A. Mehmood, J. Wiora)	
16:10-16:40	Coffee break (Room 053)	
Parallel block A4	A4.1 Regular Session	Stabilization of Mechanical Systems (Room 7) Session Chair: <i>Raffaele Iervolino</i>
	16:40-17:00	Comparison of Basic Active Stabilisation Algorithms of a Bicycle – Evaluation of the Means of Actuation (A. Frański, D. Horla, R. Iervolino)
	17:00-17:20	Funnel Control Design for a Self-Balancing Motorcycle (L. Andolfo, I. Buono, R. Iervolino, S. Manfredi, D. Horla)
	17:20-17:40	Output Tracking for the Inertia Wheel Pendulum Based on Two Variants of Feedback Linearization (M. Safarini, M. Nowicki)
	A4.2 Regular Session	Autonomy and Control in Robotics (Room 8) Session Chair: <i>Cezary Zieliński</i>
	16:40-17:00	Optimizing Robotic Palletization: Reinforcement Learning Approach (M. Tejer, R. Szczepański, T. Tarczewski)
	17:00-17:20	Requirements Driven Evolution of Łukasiewicz-PIAP Ground Robots (P. Szykarczyk, J. Wrona, C. Zieliński)
	17:20-17:40	FSM-RL Fusion: A Unified Framework for Verifiable and Adaptive Autonomous Navigation (P. Gapski, J. Kołota)
	17:40-18:00	Context-Aware Control System for Human-Assisting Robot (T. Zielińska, Q. Fu, J. Oleksiuk, V. Dutta, L.E. Ekemyong Awong, Z. Fan)
	A4.3 Regular Session	Automated Perception and Vision (Room 9) Session Chair: <i>Paweł Skruch</i>
	16:40-17:00	Hierarchical Classical Semantic Segmentation of Road Networks Using Low Data with Automated Hyperparameter Tuning (A. Morys-Magiera, M. Długosz, P. Skruch)
	17:00-17:20	From Supervised Enhancement to Detection: A Weather-Aware Adaptive YOLO Framework (N. Masarykova, R. Pasek, M. Galinski, P. Trúchly)
	17:20-17:40	Optimizing Object Detection in Degraded Visual Environments: A Comparative Study of Image Reconstruction Algorithms and the Quality-Quantity Trade-off Using YOLOv8 (J. Konopiński, A. Świetlicka, A. Rybarczyk)
	17:40-18:00	Semantic-Aware Motion Planning with ESDF Maps for Robotic Fruit Picking (M. Czajka, D. Belter)
	18:00-18:20	Road Scene Object Detection via Visible and Infrared Image Fusion and YOLO-Based Detectors (B. Bondžulić, D. Bujaković, M. Andrić, M. Stanković, M. Zouaoui Laidouni, T. Adli)
20:00-22:30	Welcome reception	

Detailed Technical Program – DAY 2 (Thursday, July 2, 2026)

09:00-09:10	Address by the Committee Chairs (Room 1)	
09:10-10:00	Plenary lecture (Room 1) Uncertainty and Control: From EKF-Based Planning to Variational Dynamic Programming by Prof. Silvère Bonnabel (Mines Paris PSL, France) Chair: <i>Wojciech Kowalczyk</i>	
10:00-10:30	Coffee break (Room 053)	
Parallel block B1	B1.1 Special Session	Analytical Methods in Nonlinear Control II (Room 7) Session Chair: <i>Klaus Röbenack</i>
	10:30-10:50	Weak and Strong Nilpotency of Goursat Control Systems (P. Mormul)
	10:50-11:10	Pure Exact Observability of a Timoshenko Beam System (M. Firkowski, J. Woźniak, G.M. Sklyar)
	11:10-11:30	Implementation of Time-Varying Controllers for a Nonholonomic Mobile Robot: Experimental Studies (A. Zuyev, V. Grushkovskaya, S. Eisner)
	11:30-11:50	Algebraic Computation of the Observer Normal Form for Polynomial Dynamical Systems (D. Gerbet, K. Röbenack)
	B1.2 Special Session	ADRC: Between Principles and Practice II (Room 8) Session Chair: <i>Paweł Dworak</i>
	10:30-10:50	Application of Generalized ADRC for Efficient Heat Source Control (P. Grelewicz, P. Nowak, R. Siwiza, J. Czczot)
	10:50-11:10	Genetic Optimisation for In-Situ Tuning an ADRC-Based Tracking Controller of an Astronomical Mount (P. Bartkowiak, D. Pazderski)
	11:10-11:30	Observer-Based Robust Trajectory Tracking of a Ball-and-Plate System: Comparative Analysis and Experimental Validation (K. Dworczyński, J. Michalski)
	11:30-11:50	Takagi-Sugeno Active Disturbance Rejection Control for Nonlinear TITO Systems (E. Wolińska, S. Domek, P. Dworak)
	B1.3 Special Session	Navigation and Control of Space Robots (Room 9) <i>Special session under the auspices of the CBK PAN</i> Session Chair: <i>Karol Seweryn</i>
	10:30-10:50	Application of the Ant Colony Algorithm in Solving Spatial Navigation Problems on the Example of a Maze (K. Falkiewicz, M. Tomera)
	10:50-11:10	Trajectory Tracking Control by Space Manipulators Equipped with Thrusters (M. Galicki, M. Węgrzyn, M. Banaszkiwicz, F.L. Basmadji, M. Sałamaj)
	11:10-11:30	Hardware-in-the-Loop Validation of Satellite Manipulator Trajectory Planning and Control Algorithms for Tumbling Target Capture Using the KUKA KUBE Testbed (T. Rybus, A. Pukacz, P. Łuczak, F.L. Basmadji, G. Granosik)
11:30-11:50	15 Years of the Planar Air-Bearing Microgravity Simulator at CBK PAN (K. Seweryn)	
11:50-12:20	Coffee break (Room 053)	
Parallel block B2	Tutorial Session 12:20-13:40	Stock Trading Via Control-Theoretic Methods - Research and Applications II (Room 7) Prof. B. Ross Barmish (University of Wisconsin, Madison, USA)
	B2.2 Regular Session	Constrained Control with Control Barrier Functions (Room 8) Session Chair: <i>Jacek Kabziński</i>
	12:20-12:40	A Comparison of Simplified Battery Models for Fast Charging using MPC and CBFs (M. Kossek, M.S. Trimoli)
	12:40-13:00	RRT* Motion Planning with Control Barrier Function Safety Derived from Poisson Fields (M. Różewicz)
	13:00-13:20	Probabilistic Collision Cone Control Barrier Function (M. Różewicz, D. Cieślak)
	13:20-13:40	Barrier Lyapunov Function Based Adaptive Neural Network Position Constraint Task Space Control of Kinematically Redundant Manipulators (C. Hindistan, B.M. Yilmaz, E. Tatlicioglu, E. Zengeroglu)
	B2.3 Regular Session	Modeling and Identification (Room 9) Session Chair: <i>Paweł Malczyk</i>
	12:20-12:40	Online Parameter Identification of a Second-Order RC Battery Equivalent Circuit Model Using Modified Search Space Reduction Algorithm (A. Mahesh, G. Sushnigdha)
	12:40-13:00	Data-Driven Surrogate Model for Voltage Control in Multi-Active Bridge Converters (N.F. Kamal, A.B. Bayindir, A. Sharida, A.L. Kouzou, S. Bayhan, H. Abu-Rub)
	13:00-13:20	Parametrization Analysis of the Multi-Dipole Model for Ferromagnetic Signature Representation at Increasing Measurement Depths (K. Zielonacki, J. Tarnawski, M. Wołoszyn)
13:20-13:40	Data-Driven Inverse Dynamics Modeling Using Regression-Based Techniques (M. Pikuliński, P. Malczyk)	
13:40-14:30	Lunch (Room 053)	

Parallel block B3	B3.2 Regular Session	Control and Navigation of Multi-Vehicle Systems (Room 8) <i>Session Chair: Wojciech Kowalczyk</i>
	14:30-14:50	Angle-Augmented Look-Ahead Controller for Vehicle Platoons (Q. Zhang, M.M. Michałek, M. Cao)
	14:50-15:10	Coverage Control for Limited Range Multi-Agent Systems Based on Health State Maintenance (Y. Li, C. Liu)
	15:10-15:30	Online Feedback Optimization Using Contraction Estimator for Multi-Robot Relative Pose Estimation and Control (X. Liu, Q. Zhang, M. Cao)
	15:30-15:50	Formation-Preserving Control for Multi-Robot Systems Using Artificial Potential Functions for Collision Avoidance (W. Kowalczyk, A. Joon)
	15:50-16:10	xCAM: An Adaptive V2X Communication for Connected Autonomous Vehicles (A. Strelec, J. Juraško, R. Bencel, P. Trúchly)
	B3.3 Regular Session	Process Modeling for Diagnostics and Control (Room 9) <i>Session Chair: Rafał Stanisławski</i>
	14:30-14:50	Welding Process Fault Diagnosis using Indirect Signal Processing (D. Bismor, A. Klimpel, R. Wyżgolik, P. Kasprowski)
	14:50-15:10	A Reproducible Low-Cost Three-Tank CPS Laboratory Setup for Networked Centralized and Distributed Consensus Strategies (S. Manfredi, R. Iervolino)
	15:10-15:30	A Digital Twin Based Real-time Adaptive PI Control Parameter Tuning Method for Dosage Phases in Textile Dyeing Processes (M. Çom, A. Akyurt, S. Sultanoğlu)
	15:30-15:50	Modeling of the Concrete Products Drying Process in an Industrial Dryer for Control System Design (M. Łukasiewicz, R. Stanisławski, M. Nitsche, R. Junga)
	15:50-16:10	Identifying the Effect of Temperature on the Data Retention Process in LPDDR5 (J. Warmbier, M. Szymkowiak)
16:10-18:20	Meeting of the Automatic Control & Robotics Committee of the Polish Academy of Sciences (Room 7)	
20:00-22:30	Banquet	

Detailed Technical Program – DAY 3 (Friday, July 3, 2026)

09:00-09:10	Announcements (Room 1)
09:10-10:00	Plenary lecture (Room 1) Control of Autonomous Systems in the Era of Artificial Intelligence by Prof. Paweł Skruch (AGH University of Kraków, Poland) Chair: <i>Dariusz Horla</i>
10:00-10:30	Coffee break (Room 053)
Parallel block C1	C1.1 Special Session Recent Developments in Finite-/Fixed-Time Stability and Stabilization (Room 7) Session Chair: <i>Michael Defoort</i>
	10:30-10:50 Comparative Analysis of Predefined-Time Controllers (A.R. Bennacer, P. De Villeros, Y. Chen, M. Defoort, J. Diego Sanchez-Torres)
	10:50-11:10 Observer-Based Fixed-Time VFO Control Algorithm for Leaderless Multi-Vehicle Systems with Directed Communication Topology (R.M. Sobański, M. Defoort, M.M. Michałek)
	11:10-11:30 Matching Conditions in Sliding Mode Control of Discretized Dynamical Systems (P. Latośński)
	11:30-11:50 A Selective Review of Reaching Law Based SMC (F. Szweczyk, K. Adamiak)
	C1.2 Special Session ADRC: Between Principles and Practice III (Room 8) Session Chair: <i>Gernot Herbst</i>
	10:30-10:50 Bayesian Extended State Estimation for Active Disturbance Rejection Control Using Particle Filtering (J. Michalski, K. Dworczyński)
	10:50-11:10 Linear Active Disturbance Rejection Control for Enhanced Sub-Synchronous Oscillation Suppression in DFIG Wind Power System (C. Li, H. Liu, B. Guo, R. Zhao, J. Pouget)
	11:10-11:30 Model-free Resonance Cancellation in Motion Control: a Generic PID Solution (Yu Hu, Zhiqiang Gao)
	11:30-11:50 Smith Predictive Active Disturbance Rejection Approach for Solar Collector Field (J.J. Carreño-Zagarra, M. Ramírez-Neira, I.M.L. Pataro, J.C. Moreno, J.L. Guzmán)
	C1.3 Regular Session State Estimation and Observers (Room 9) Session Chair: <i>Rafał Łangowski</i>
	10:30-10:50 Gaussian Process-Based Modeling of Dissolved Oxygen in a Single Aeration Phase SBR (B. Puchalski, T. Zubowicz)
	10:50-11:10 Analysis of the Cascade GPIO Observer Using the Residual Term of Disturbance Estimation (M. Ramírez-Neria, J. González-Sierra, A. Luviano-Juárez)
	11:10-11:30 Respiration Rate Estimation Using a Two-Input High-Gain Observer in Application to a Wastewater Treatment Plant (B. Milewska, R. Łangowski)
	11:30-11:50 A Model Reference Adaptive Approach to Robust Observation of Nonlinear Time-Varying Systems (G.M. Kumar, Q. Liu, M. Gramuglia, A. L'Affitto)
11:50-12:20	Coffee break (Room 053)
Parallel block C2	C2.1 Regular Session Fuzzy Rules Design and Applications (Room 7) Session Chair: <i>Marcin Witczak</i>
	12:20-12:40 Comparative Study of Fuzzy Logic and LQ Control for Reaction Pendulum (P.W. Wiktor, A.K. Piłat)
	12:40-13:00 Selected Issues of the Wang-Mendel Method of Generating Fuzzy Rules from Data (M. Bartyś, B. Hryniewicki)
	13:00-13:20 Towards Automated Soft Skills Assessment with Fuzzy Logic Inference Framework (M. Witczak, J. Hermaszewski, M. Wiśniewski, A. Pławiak-Mowna, R. Stetter)
	13:20-13:40 Quantum Fuzzy Control of Robot Arms (M. Kielczewski, M. Pawlak, S. Stępień, E. Bayro-Corrochano)
	C2.2 Special Session Automation and Robotics for Environmental and Agriculture Applications (Room 8) <i>Special session under the auspices of the CBK PAN</i> Session Chair: <i>Marek Banaszekiewicz</i>
	12:20-12:40 Development of a Modular Mobile Manipulator Platform for Greenhouse Tomato Harvesting (M. Węgrzyn, M. Sałamaj, W. Babirecki, M. Banaszekiewicz, F.L. Basmadji, M. Galicki, K. Piotrowski, K. Turchan, K. Wołoszyn)
	12:40-13:00 Application of Mobile Manipulators to Tomato Harvesting (M. Galicki, M. Węgrzyn, M. Banaszekiewicz, F.L. Basmadji, M. Sałamaj)
	13:00-13:20 Reward Sparsity as an Implicit Regularizer for Effective Skid-Steer Robot Navigation in Cluttered Environments (O. Águila, M. Torres-Torriti, R. Toro, F. Auat Cheein)
13:40-14:30	Lunch (Room 053)

Parallel block C3	C3.1 Special Session	Recent Issues in Control Theory II (Room 7) Session Chair: <i>Jerzy Baranowski</i>
	14:30-14:50	Descriptor Standard and Fractional Discrete-Time Linear Systems with State Feedbacks (T. Kaczorek, Ł. Sajewski)
	14:50-15:10	Internal Model Control of Non-Minimum Phase Systems Using Time-Scaling (K. Röbenack, D. Gerbet)
	15:10-15:30	Reduction of the Descriptor 2-D Linear Models to the Equivalent 2-D Standard Models (T. Kaczorek)
	15:30-15:50	Autonomous mobile robot BoxyGo (J. Gicala, S. Ligas, P. Majerczyk, M. Długosz)
	15:50-16:10	High-Probability ISS Tubes for Continuous-Time State Estimation (J. Baranowski)
	C3.2 Special Session	Sensing and Control in Soft Robotics (Room 8) Session Chair: <i>Jakub Bernat</i>
	14:30-14:50	The Design of Control System for Magnetorheological Elastomer Ball by Active Disturbance Rejection Control (M. Mrotek, J. Bernat)
	14:50-15:10	Physics-Informed Neural Networks for Pneumatic Soft Manipulators under Sparse End-effector Observations: A Latent-State Reconstruction Framework (H. Xiao, M. Patan)
	15:10-15:30	Active Magnetic Levitation with Five-Poles Electromagnet Applied as Contactless Robotic Gripper (A.K. Piłat)
15:30-15:50	Dynamic Model Inversion of a Soft Robot Using Servo-Constraints (S. Maroofi, M. Grube, R. Seifried)	
14:30-16:10	Meeting of the PhD-Students Contest Jury (Room 9)	
16:10-16:40	Coffee break (Room 053)	
16:40-17:00	PhD-Students Contest Award Ceremony (Room 7)	
17:00-17:10	Closing address (Room 7)	
17:20-18:20	Farewell party (Building of the Faculty of Architecture)	

Social Events Info

Welcome Reception

Date:	Wednesday, July 1, 2026
Event time:	20:00 – 22:30
Venue:	Palace in Wąsowo, approximately 50 km west of Poznań
Meeting time:	18:40 (please, be on time)
Meeting point:	Registration Desk, Poznan University of Technology (PUT)
Transportation:	Buses will take all the conference participants to Wąsowo and back to Poznań.

Conference Banquet

Date:	Thursday, July 2, 2026
Event time:	20:00–22:30
Venue:	Bazar 1838 Restaurant, Ignacego Paderewskiego 8 Street (very close to the Old Market Square) Here is a link to the street map .
Meeting time:	N/A
Meeting point:	N/A
Transportation:	Participants are asked to make their own way to the restaurant (it is within a walking distance and can be reached via the pedestrian footbridge). It is also accessible by the public transportation - a tram goes from the stop <i>Politechnika</i> to the stop <i>Aleje Marcinkowskiego</i> .

Farewell Party

Date:	Friday, July 3, 2026
Event time:	17:20 – 18:20
Venue:	Poznan University of Technology, building of the Faculty of Architecture
Meeting time:	17:10
Meeting point:	Registration Desk, Poznan University of Technology
Transportation:	We will go to the destination by foot (approx. 5 min.).

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GRAND FLOOR

PCC 2026 | 22nd Polish Control Conference (PCC)

Plan of the conference venue with rooms location



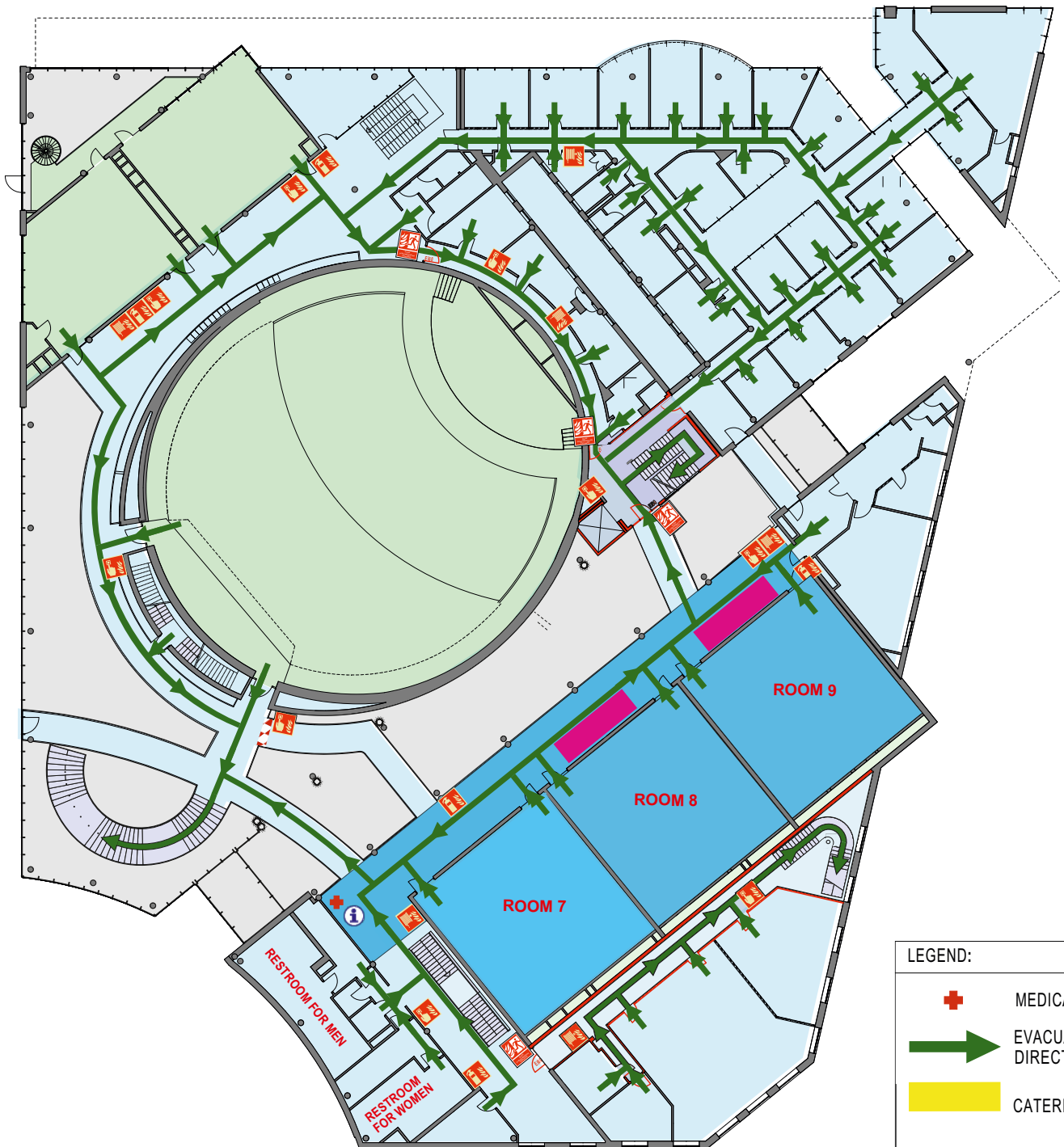
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-  EVACUATION DIRECTION
-  CATERING





A-23

FIRST FLOOR

PCC 2026 | 22nd Polish Control Conference (PCC)
Plan of the conference venue with rooms location



LEGEND:

-  MEDICAL POINT
-  EVACUATION DIRECTION
-  CATERING
-  EXHIBITION STANDS