



Joint International Conference
5th Conference on Engineering and Entrepreneurship & 11th Textile Conference
2025
Tirana 23 – 24 October 2025
Program

(GMT+2 time zone)

Thursday, October 23, 2025
Polytechnic University of Tirana, Tirana
Chair: **Genti Guxho**

9.30 – 10.00

Registration & coffee

10.00 – 10.30

Greeting message

Rectorate of Polytechnic University of Tirana

Greeting message

**Professor Genti GUXHO—Dean of Mechanical Engineering Faculty,
Polytechnic University of Tirana**

Greeting message

**Professor Mirind Bruçi—Dean of Mechanical Engineering Faculty, University
of Prishtina**

10.30 – 10.50

Plenary Lecture 1

**Professor Edmondo Minisci - *University of Strathclyde, Glasgow, United
Kingdom***
“Multi-Fidelity Methods for Engineering Design”

10.50 – 11.10

Plenary Lecture 2

Professor Ada Traumann - *TTK University of Applied Sciences, Estonia*
**“Towards integrated ergonomics in PPE textiles: a Review of current
developments”**

11.10 – 11.30

Plenary Lecture 3

Gianni Del Gobbo – *Mechinno Engineering Solutions, Italy*
“Automotive Development & Design Process”

12.00

Guided City tour

19:00 Conference Dinner
Gzona – Kalaja e Tiranës

Gzona Restorant on Google Maps

<https://maps.app.goo.gl/BQtV22PwzLpbYvPj7>

Friday, October 24th, 2025
Polytechnic University of Tirana

ROOM A- Aula Magna – Session 1
Transport & Production
Chair: **Edmondo Minisci**

8:30 – 09:00	Registration
09:00 – 9:15	<i>Development of Multifunctional Fiber Optic Sensors for Complex Aerospace Systems Monitoring</i> Alessandro Aimasso , Matteo Bertone, Paolo Maggiore, Matteo D.L. Dalla Vedova
09:15 – 9:30	<i>Accurate Schematization and Simulation of an Accelerameter Using MATLAB/Simulink: A Comperative Study</i> Parid Alimhillaj , Edmondo Minisci, Matteo Dalla Vedova, Luis Lamani
09:30 – 9:45	<i>Model Structure Mining for Electromechanical Actuator Systems: Signal Characteristic Analysis Using High-Dimensional Model Representation and Kolmogorov-Arnold Modelling</i> Parid Alimhillaj, Edmondo Minisci , Matteo D.L. Dalla Vedova, Carlo Giovanni Ferro, Paolo Maggiore
09:45 – 10:00	<i>Prediction of Electricity Consumption of Machines in Manufacturing Industries by Artificial Neural Networks</i> Giorgio Mustafaraj , Klodian Dhoska, Irida Markja, Odhisea Koça
10:00–10:15	<i>Design and Implementation of a Mechatronic System for Intelligent Production Lines</i> Driton Bardheci, Xhevahir Bajrami , Erald Piperi, Erjon Shala, Ramë Likaj, Drin Krasniqi, Mirlind Bruqi, Andi Gashi
10:15 – 10:30	<i>Methodology for Modeling Electricity Consumption of Manufacturing Machinery Using Artificial Neural Networks</i> Giorgio Mustafaraj , Klodian Dhoska, Elena Bebi

10:30–10:45

Coffee Break

ROOM A – Session 2
Energetics
Chair: **Orlando Corigliano**

10:45–11:00	<i>Development of small-scale pumps and fans on a budget: essential tools and their practical application</i> Spartak Poçari , Luis Londo, Thomas Carolus
11:00–11:15	<i>Solar resource assessment and feasibility study, for utility scale PV plants in South-West Albania, using high resolution WRF-Solar and PVSyst Modeling</i> Adrist Stërmasi , Daniele Colarossi, Renato Ricci, Majlinda Alcani, Elena Bebi
11:15–11:30	<i>Toward Zero-Emission Dairy Processing: Energy Modeling and Renewable Supply Integration in a Milk and Cream Facility</i> Orlando Corigliano , Jessica Settino, Pietropaolo Morrone, Angelo Algieri

11:30–11:45	<i>The Use of Solar PV Systems for Electricity Generation as an Opportunity to Power High-Temperature Heat Pumps in a Typical Guesthouse Building in Albania</i> Albert Shira , Ramadan Alushaj, Edmond Zeneli, Flamur Bidaj
ROOM A – Session 3 Energetics Chair: Alessando Aimasso	
11:45–12:00	<i>System Integration of a PV–Battery–H₂PEM Hybrid Power Station: Dynamic Modeling, Simulation, and Case Study Assessment</i> Orlando Corigliano , Francesco Piraino, Matteo Genovese, Petronilla Fragiaco
12:00 – 12:15	<i>Problems appearance in power system due to energy production by solar plants - case study by solar plants - case study</i> Ajakida Eski , Bajram Leka
12:15 – 12:30	<i>Calculation and assessment of pollution caused by internal combustion engine using RK-DIESEL software for Tirana in the frame of decarbonisation of the transport sector</i> Tauland Spahiu , Majlinda Alcani, Altin Dorri, Spartak Poçari
12:30 – 12:45	<i>Energy Performance Analysis of the Motor-Propeller Unit on a Drone Wing: Design Optimization and Experimental Validation</i> Spartak Poçari , Andonaq Londo, Majlinda Alcani, Altin Dorri, Tauland Spahiu
12:45 – 13:30	Lunch Break
ROOM A – Session 4 Management & Production Chair: John Kechagias	
13:30– 13:45	<i>Design and Development of a Metallic Platform for Solving Technical Issues in Cheese Production</i> Andi Gashi , Xhevahir Bajrami, Ramë Likaj, Erjon Shala, Drin Krasniqi, Mirlind Bruqi
13:45 -14:00	<i>Real-time monitoring of the FFT algorithm running on an ARM Cortex-M0 Microprocessor</i> Ajakida Eski , Arnisa Myrtellari
14:00 – 14:15	<i>Optimization of bicycle helmet design with auxetic lattice structure</i> Ioannis Ntintakis , Zacharias Tampakakis, Dimitrios (Online)
14:15 – 14:30	<i>Decoding the 4D Roles of E-Commerce in Entrepreneurship: A Systematic Review of Perspectives for Future Research</i> Hanna Resti Melanie and Agung Purnomo (Online)
14:30 – 14:45	<i>Dimensional accuracy and international tolerance grading of 3D-printed PLA/WOOD HALF-LAP JOINTS</i> Kostantinos Kitsakis , Kostantinos Ninikas, John Kechagias
14:45 – 15:00	<i>Mechanical strength modeling of the 3D printed PLA/Copper-powder filament using Box Behnken design</i>

	<i>Vasileios Kyratsis, Anastasios Tzotzis, Andrzej Wrobel, Nikolaos Efkolidis (Online)</i>
15:00– 15:30	Coffee Break

ROOM A – Session 5 Materials Chair: Zorica Đurović	
15:30 – 15:45	<i>Matrix characteristics for producing aluminum profiles at the Alumil-Albania Company sh.p.k.</i> Indrit Lala , Indrit Vozga, Vladimir Kasemi
15:45 – 16:00	<i>Aluminum Profile Manufacturing Process and Quality Management in the Automotive Sector: Case study from Everest Ltd., Albania</i> Irida Markja , Valma Prihti, Nikolin Stefanidhi, Enxhuina Sakaj, Ermil Sita, Girogio Mustafaraj, Ersi Zaganjori
16:00 – 16:15	<i>Modelling and Optimization of Injection Moulding Parametrs for the Production of Plastic Manholes</i> Drin Krasniqi , Xhevahir Bajrami, Erjon Shala, Ramë Likaj, Mirlind Bruqi, Andi Gashi, Driton Bodeci
16:15 – 16:30	<i>Investigation of Deformation Mechanisms during the Recrystallization of Pure Copper by X-Ray Diffraction (XRD)</i> Dorian Osmanaj , Erald Piperi, Ilo Bodi
16:30 - 16:45	<i>Word List of Research in Decarbonization in the Maritime Industry</i> Zorica Đurović , Tatijana Dlabac̃, Nemanja Pudar
16:45 – 17:00	Optimization of a 3D-printed court heel utilizing robust experimental design Tatjana Spahiu , Stephanos Zaoutsos, John Kechagias

ROOM B—Session 1 Textile (cloth, footwear, and leather) Chair: Ermira Shehi	
09:00 – 9:15	<i>Advancing Sustainability through Systems Thinking in the Context of the Minifactory Laboratory</i> Ada Traumann , Evelin Vaab, Margit Kuusk, Teele Peets
09:15 – 09:30	Premium Yet Responsible: Quiet-Luxury Principles in Denim Design and Sustainable Production Ozgur Ceylan , Nesligül Kılıç, Irmak Taş Emel Aydın, Neslihan Ak, Ecem Gökay (Online)
09:30 –09:45	Impact of Sustainability, Globalisation and Digitalisation on Romanian Footwear Manufacturing Arina Seul , Aura Mihai, Andreas Saniter, Mariana Costea, Raluca Lupu (Online)
09:45 – 10:00	<i>Resource Use and Waste Management in Footwear Production</i> Majlinda Hylli , Ilda Kazani and Ermira Shehi

10:00 – 10:15	<i>Clean, Green, and Competitive: Advancing Albania's Garment and Footwear Industry through Circular Economy</i> Albana Leti , Ermira Shehi, Eralda Xhafka, Silva Spahija
10.15 – 10.30	<i>Energy Benchmarking: A necessity for garment manufacturing companies in Albania</i> Elmira Dumishllari & Silva Spahija
10.30– 10.45	Coffee Break

ROOM B—Session 2 Textile (cloth, footwear and leather) Chair: Sheilla Odhiambo	
10:45 – 11:00	Linen fabric: a suitable substrate for the formation of bacterial biofilms Nina Čuk , Rok Fink, Klara Kostajnsšek, Matejka Bizjak, Brigita Tomšič
11:00 – 11:15	Comfort properties of enzymatically pre-treated cotton-polyester blended fabrics Anita Tarbuk and Stefana Begovic (Online)
11:15 – 11:30	<i>Textile Dipole Antennas in Textile Substrates</i> Fabiola Alikaj , Sabrina Hoxhaj, Ilda Kazani, Aristeidis Repoulis, Savvas Vassiliadis, Stylianos Mytilinaios, Sotiria Galata
11:30 – 11:45	<i>Hybrid Organic-Inorganic Sol-Gel Based Textile Finishing for Real-Time Sweat pH Monitoring in Wearable Health Systems</i> Azin Safarshargh , Agnese D'Agostino, Giuseppe Rosace, Raphael Palucci Rosa, Mariam Hadhri, Valentina Trovato (Online)
ROOM B—Session 3 Textile (cloth, footwear, and leather) Chair: Holger Cebulla	
11:45 – 12:00	<i>Performance assessment of advanced base-layer textiles for enhanced thermo physiological comfort in military clothing system</i> Sheilla Odhiambo , Magdalena Georgievska, Stéphane Brunnel, Hilda Wullens, Lieva Van Langenhove, Alexandra De Raeve
12:00 – 12:15	<i>Hygroscopic Lithium Chloride-Enhanced Composite Coating for Efficient Passive Cooling Textiles</i> Nazife Korkmaz Memiş , Kutay Aşık (Online)
12:15 – 12:30	Influence parameters in the mechanical recycling of wool Megi Basho , Holger Cebulla, Ilda Kazani
12:30 – 12:45	<i>Siloxane-Based Sol-Gel Coatings for Fluorine-Free Water-Repellent Textiles</i> Mariam Hadhri , Agnese D'Agostino, Azin Safarshargh, Raphael Palucci Rosa, Claudio Colleoni, Giuseppe Rosace, Valentina Trovato (Online)
12:45 – 13:30	Lunch Break

ROOM B—Session 4
Textile (cloth, footwear, and leather)
Chair: **Yordan Kyosev**

13:30 – 13:45	<i>Digital Application of Ethno-Elements in Costume Design: from Pencil Sketch up to AI Generated Image</i> Eugenija Strazdiene, Aferdita Elezi, Juesa Alian, and Anita Mene (Online)
13:45 -14:00	Transformation of Historical Accessories through Wool Felting Elena Zurleva, Svetla Tsvetanova, Petya Dineva, Zlatina Kazlacheva, Julieta Ilieva, Zlatin Zlatev (Online)
14:00 – 14:15	<i>From Traditional Weaving to Modern Menswear: The Use of Şile Cloth in Men's Fashion</i> Nefiye Esin Köşüm & Ayben Pakolpakçıl (Online)
14:15 – 14:30	An Investigation of the Factors Forming a Sustainable Transition in the Fashion Sector in Bulgaria Mima Penkova, Zlatina Kazlacheva, Petya Dineva, Julieta Ilieva, Elena Zurleva, Zlatin Zlatev (Online)
14:30 – 14:45	3D Virtual Fitting for Inclusive Garment Design Using Varied Standard Body Avatars Ruzica Stevkovska Stojanovska and Maja Jankovska (Online)
14:45 – 15:00	<i>VR applications in Engineering Design Education: a 3D printing related case study</i> Ioanna Kalamakidou, Anastasios Tzotzis, Tatjana Spahiu, Panagiotis Kyratsis (Online)
15:00 – 15:30	Coffee Break

ROOM B – Session 5
Textile (cloth, footwear, and leather)
Chair: **Ada Traumann**

15:30 – 15:45	<i>Increasing Production Capacity in Garment Industry Through Improvement of Operator's Performance</i> Silva Spahija, Elmira Fejzo and Albana Leti
15:45 – 16:00	<i>A Hybrid Approach to Shoe Design: Fusing Manual Illustration with AI Technologies</i> Buket Dürdane Sütli, Özge Işık, Atilla Başlar, Nazlıcan Acar, Humayun Kabir, Muhammet Uzun (Online)
16:00–16:15	<i>Development of Detachable Rivet and Button Systems for Enhanced Recyclability in Denim Textiles</i> Tuğba Bektaş, Alper Tobak, Muhammet Uzun (Online)
16:15 – 16:30	From Workwear to Sustainable Icon: Youth-Driven Design in Denim Ozgur Ceylan, Nesligül Kılıç, Irmak Taş, Emel Aydın, Neslihan Ak, Tuğçe Yavaş (Online)
16:30 - 16:45	<i>Effect of Seams on Fabric Drape</i> Ruzica Stevkovska Stojanovska, Goran Demboski (Online)
16:45 – 17:00	<i>Evaluation of Pattern Design of Women's Jackets with Sleeves with Wedges</i> Krasimira Radieva, Zlatina Kazlacheva, Julieta Ilieva, Petya Dineva, Zlatina Zlatev (Online)

ROOM C – Session 1	
Chair: Xhevahir Bajrami	
09:45–10:00	<i>Study of the condition of steel reinforcing bars in the reinforced-concrete structures of the Rrogozhinë–Pogradec railway bridges, Albania</i> Enes Abazi , Indrit Vozga, Vladimir Kasemi
10:00–10:15	Contact Problems in Couplings with Free Movement Anesti Nasi , Klodian Dhoska, Anis Sulejmani, Odhisea Koça
10.15 – 10.30	<i>Techno-economic assessment of a large-scale Floating Photovoltaic plant in the reservoir of the Vau i Dejës hydropower plant, Shkodër, Albania</i> Artan Hoxha , Majlinda Alcani, Mariglen Shuli, Spartak Pocari, Altin Dorri
10:30–10:45	Coffee Break

ROOM C—Session 2	
Management and production	
Chair: Artan Sinoimeri	
10:45 - 11:00	<i>Albania's foreign trade in the early 20th century as indicator of the level of its economic development</i> Genti Guxho & Eralda Xhafka
11:00–11:15	<i>"Black Friday" and Its Impact on Consumer Behavior and Business Performance</i> Irma Shyle , Ersjena Rruplli
11:15–11:30	<i>The Impact of Digitalization on Public Services. Case study in Albania</i> Valma Prifti , Irida Markja and Elena Bima
11:30–11:45	<i>The impact of Supply Chain Optimization on Corporate Financial Performance</i> Dea Sinoimeri & Jonida Teta
ROOM C—Session 3	
Management and production	
Chair: Savin Dorin Ionesi	
11:45–12:00	<i>Development of devices and methods for reproducible stability and adhesion during 3D printing on textiles</i> Samuel Latrille, Jacob Hossfeld, Yordan Kyosev
12:00 – 12:15	<i>Improving the quality of recycled PLA filament: Effects of extrusion speed and cooling conditions</i> Radu Firicel , Eugen Constantin Ailenei, Emil Constantin Loghin, Savin Dorin Ionesi
12:15–12:30	<i>3D printing concrete: A short review of Systems and Materials</i> Aikaterini Kechagia, Lazaros Tzounis, John Kechagias

12:30 - 12:45	<i>Risk Assessment and Preventive Measures for Occupational Safety and Health: A Case Study in the Extraction and Processing Industry of Platy Limestone and Siliceous Sandstone</i> Artan Hoxha , Ardit Gjeta, Majlinda Alcani
12:45-13:30	Lunch Break

ROOM C – Session 4 Transport and Construction Chair: Arbnor Pajaziti	
13.30 – 13.45	<i>Approval of an Ultrasonic Testing Procedure for Rail Weld Integrity Evaluation</i> Enkelejda Konda , Dhimitraq Sotja, Migena Zeqo
13.45 - 14.00	<i>Robotic Object Identification and Sorting Supported by Artificial Intelligence</i> Fisnik Gashi, Arbnor Pajaziti , Xhevahir Bajrami, Ahmet Shala
14.00 – 14.15	<i>Non-Destructive Evaluation of the Penstock at Hydropower Plant: Structural Integrity Assessment through Ultrasonic and Magnetic Testing (Case study)</i> Enkelejda Konda, Dhimitraq Sotja , Migena Zeqo
14.15 – 14.30	<i>Parameters Optimization for Surface Roughness Improvement in Sustainable Dry Machining Of Inconel 718 by using Taguchi Method</i> Fatlume Zhujani, Fitim Zeqiri , Mirlind Bruçi, Nexhat Qehaja
14.30 – 14.45	<i>How The Piston Secondary Motion Affects the Ring Ability to Seal the Combustion Chamber</i> Erjon Selmani , Koçi Doraci, Miranda Kullolli
14:45 – 15.00	<i>Tribological Damage in H13 Aluminum Extrusion Dies: Comparative Analysis for 6063/6082 Alloys with Numerical Design Validation toward Life Extension</i> Shpresa Caslli , Spartak Poçari
15.00 – 15.30	Coffee Break

17.00 – 17.30 Discussion and Conclusions
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