# ICAMaT 2022

## 12th International Conference on Advanced Manufacturing Technologies

# Conference Programme

## October 21st, 2022
## Bucharest, Romania

# Organizer

## **Manufacturing Engineering (TCM) Department**
Faculty of Industrial Engineering and Robotics (IIR),
University POLITEHNICA of Bucharest

# Conference Programme

Friday, 21<sup>st</sup> of October 2022

| Time (RO) | Activities |
|---|---|
| 09.00 – 10.00 | **ICAMaT 2022 Participants registration – CK 104 main hall** |
| 10.00 – 10.30 | **ICAMaT 2022 opening – ROOM CK 104b**<br>*Welcome speech*:<br>● Prof. Cristian DOICIN, Dean of the Faculty of Industrial Engineering and Robotics (IIR), POLITEHNICA University of Bucharest, Romania<br><br>● Prof. Tom SAVU, Head of Manufacturing Engineering Department (TCM), Faculty of Industrial Engineering and Robotics (IIR), POLITEHNICA University of Bucharest, Romania |
| 10.30 – 11.50 | Paper sections according to the conference programme |
| 11.50 – 12.10 | Coffee Break |
| 12.10 – 13.30 | Paper sections according to the conference programme |
| 16.00 – 20.00 | Early Dinner (POTCOAVA restaurant) |

# Conference Sections

Section 1    Integrated Products and Systems Development - ROOM CK 104a

Section 2    Flexible and Intelligent Manufacturing and Control Systems - ROOM CK 104b

Section 3    Industrial Products and Systems - Online on MS Teams platform (*please access this link*)

## Section 1. Integrated Products and Systems Development

Section.1. **Integrated Products and Systems Development – ROOM CK 104a**

*Section chairs: Cristian DOICIN, Daniel GHICULESCU*

1    Andrei DUMITRESCU

   *Perceived characteristics of materials as tools for designer*

2    Miruna Lucreția COMEAGĂ

   *Digital transformation of the laboratories*

3    Ileana DUGĂEȘESCU, Gabriela-Marina PÂRVU, Vlad-Cristian ENACHE

   *Development of an additive fabricated biped mechanical system*

4    Daniel GHICULESCU, Raluca CREȚU, Ovidiu ALUPEI

   *Research concerning ultrasonic chains with torsional vibrations for different industrial applications*

5    Nicolae IONESCU, Mihaela-Elena ULMEANU, Cristian Vasile DOICIN, Cătălin IONESCU, Paulina SPÂNU

   *Prescribed precision for medical products obtained with additive manufacturing technologies*

6    Bogdan Adrian NICOLIN, Ilie NICOLIN

   *Simulation of the hydraulic steering device, for a nose landing gear*

# Section 2. Flexible and Intelligent Manufacturing and Control Systems

Section.2. **Flexible and Intelligent Manufacturing and Control Systems – ROOM CK 104b**

*Section chairs: Marian GHEORGHE, Tom SAVU*

1   Diana Irinel BĂILĂ, Sergiu TONOIU

   *Properties of photo-curable polyurethane resins used in SLA manufacturing*

2   Tom SAVU, Bogdan Alexandru JUGRAVU

   *Vehicles fleet communications in data infrastructure unavailability situations*

3   Laurențiu-Aurel MIHAIL, Alexandru FILIP, Adrian MIJA

   *Researches on the geometrical and dimensional accuracy for complex thin parts made of electrical steel by abrasive waterjet machining*

4   Marian GHEORGHE, Flavia Petruța Georgiana STOCHIOIU, Daniel-Silviu MANOLACHE, Manuela-Roxana DIJMĂRESCU, Dragoș ILIESCU

   *Analysis and development on general structure and characteristics of laser interferometry systems*

5   Flavia Petruța Georgiana STOCHIOIU, Constantin STOCHIOIU, Ana Maria Eulampia ROLEA, Nasim GANNAM

   *Interferometric evaluation of positioning error and position repeatability on CNCs*

6   Ioan Alexandru POPAN, Nicolae BÂLC, Alina Ioana POPAN, Andrei Nicolae CERCIU

   *Experimental studies on turning process, using the Prime turning processing strategy, proposed by Sandvik Coromant*

# Section 3. Industrial Products and Systems

1   Adelina HRIȚUC, Andrei-Marius MIHALACHE, Laurențiu SLĂTINEANU, Oana DODUN, Gheorghe NAGÎȚ, Marius Ionuț RÎPANU

   *The influence of the cooling conditions and inclination of surfaces obtained by 3D printing on the roughness parameters*

2   Ciprian RAD, Olimpiu HANCU, Ciprian LĂPUȘAN

   *Aspects regarding the modelling and design of 3D-printed bending soft pneumatic actuators*

3   Elhocine CHIBA, Mourad ABDELKRIM, Abderrahim BELLOUFI, Imane REZGUI and K. MAOU

   *Monitoring the temperature of contact wheel/rail in a tramway with an infrared sensor programmed by a microcontroller*

4   Paul TUCAN, Florin GRAUR, Andrei CAPRARIU, Corina RADU, Alin BURZ, Calin VAIDA, Nadim AL HAJJAR, Tiberiu ANTAL, Doina PISLA

   *A functional design analysis of a robotic-guided brachytherapy instrument*

5   Sergiu PASCU, Nicolae BÂLC, Adrian Augustin POP

   *Reconstruction of orbital wall by using hybrid manufacturing operations*

6   Crina-Andreea DUTA, Nicoleta Luminița CĂRUȚAȘU, Iulia Cristina STANICA, Andrei GEORGIAN

   *Criteria for analyzing online traffic encountered in web and mobile applications in order to model an automated application testing system*

7   Goran MUNĐAR

   *Development and control of a virtual industrial process for assembling computers*

8   Liviu Mihai SIMA

   *Testing mechatronic systems and their integration into the digital enterprise*