



FINAL PROGRAM INTERNATIONAL CONFERENCE NEWTECH2022

8 – 10 September 2022

Amphitheater André BONNIN – Bat. 5 INSA Rennes, Rennes, FRANCE

THURSDAY 8 SEPTEMBER 2022

8h30 – 9h30 : **PARTICIPANTS REGISTRATION** – Front of Amphitheater André BONNIN – Bat. 5 INSA Rennes, Rennes, FRANCE

9h30 -10h00 : **OPEN CEREMONY**

- Prof. Hervé FOLLIOT Research Director of INSA Rennes
- Assoc. Prof. Habil. Dr. Adinel GAVRUS – Chairman of NEWTECH 2022
- Prof. Dr. Viorel PAUNOIU – Vice-President of NEWTECH 2022

10h00-10h30 : Coffee Break

10h30 – 11h10 : FRENCH MECHANICAL YEAR 2021-2022 - **Introduction by President Representing of French Mechanical Association – AFM and by Mandatory Deputy of Manufacturing'21**

- Prof. Tanguy ROUXEL Responsible of “MecaScience” Seminars or UR1/INSA Rennes/ENS Cachan – Mechanics Year 2021-2022/Prof. Valérie BOTTON representing the President of AFM (France) – visio-conférence
- Prof. Guenaël GERMAIN – Manufacturing'21

11h10 – 11h50 : **PLENARY LECTURER - Convergent manufacturing to leverage sustainability and digitalisation of industrial production**

- Prof. Mohamed EL MANSORI, Arts et Métiers Paris Tech, ENSAM Aix-en-Provence, Director AM2 Transatlantic Partnership, Director Mechanics, Surfaces and Material Processing Laboratory (MSMP-EA7350), Head Engineering and Multi-physics of Multi-scale Manufacturing Research Group, France

11h50-12h30 : **ONLINE SCIENTIFIC SESSION** (2 speakers x 20' – online presentations) – Session Chairman: Assoc. Prof. Adinel GAVRUS

<https://zoom.us/j/93457457343?pwd=djdad3M3T2lzTHovWitmYmxuTUdaZz09>

Bernd Peukert, Adithya Rangaraju, Andreas Archenti, In-situ prediction of the spatial surface roughness profile during slot milling

Nikolaos Vaxevanidis, Laser cutting of FFF PLA/wood *and* Machinability optimization of dry CNC turning of UNIMAX® tool steel under annealed and hardened states by implementing swarm intelligence algorithms

12h30-12h40 : Group Photo – in the front of INSA Rennes Administrative Building (Bat. 2)

12h40 – 14h00 : LUNCH – Staff Cafeteria

14h00 – 14h40 : **PLENARY LECTURER - The new technologies for advanced joint implants**

- Prof. M. PISKA, Brno University of Technology, Faculty of Mechanical Engineering, Department of Manufacturing, Cehia

14h40-15h40 : **SCIENTIFIC SESSION** (3 speakers x 20') – Session Chairman: Prof. Viorel PAUNOIU

Philippe SEITIER, Patrick GILLES, Valérie BOUDIER, Michel GALAUP and Pierre LAGARRIGUE, Getting started procedure of a NC machine simplified by the use of a mixed-reality training scenario

Gabriela-Petruța RUSU, Valentin Ștefan OLEKSIK, Radu Eugen BREAZ, Dan DOBROTĂ, Ilie Octavian POPP, Analysis of the metal sheets formability at single point incremental forming process

Mihai-Octavian POPP, Sever-Gabriel RACZ, Mihaela OLEKSIK, Claudia GÎRJOB, Cristina BIRIȘ, Analysis of forming forces at SPIF using Taguchi method

15h40 – 16h00 : Coffee Break

16h00 – 17h20 : **HYBRID SCIENTIFIC SESSION** (4 speakers x 20') – Session Chairman: Prof. Mohammed EL MANSORI

Vasile Ermolai, Alexandru Sover, Marius Andrei Boca, Adelina Hrițuc, Laurențiu Slătineanu, Gheorghe Nagîț and Răzvan Cosmin Stavarache, Mechanical Behaviour of Macroscopic Interfaces for 3D Printed Multi-material Samples

Miroslav Piska and Katerina Urbancova, On the Machining of Joint Implant UHMWPE Inserts

<https://zoom.us/j/95314766050?pwd=UTIUNW1Cd3E3SHIjUFkzNFVOW9aQT09>

Teodor Costinel Popescu, Alexandru-Polifron Chiriță, Ana-Maria Carla Popescu, Andrei Vlad, Gheorghe Alexandru Trănesci, Alina Iolanda Popescu, Optimization of Manufacturing Processes by Reducing the Costs of Tools and Equipment on Hydraulically Operated High-Pressure Technological Lines

Cătălin Dumitrescu, Adinel Gavrus, Radu Rădoi, Ștefan Șefu, Alexandru-Polifron Chiriță, Ana-Maria Popescu and Dragoș Preda, Modern Techniques for Remanufacturing Hydraulic Equipment in the Context of Circular Economy and Energy Efficiency

19h00 – 22h30 : **OFFICIAL DINNER – RESTAURANT « LA TAVERNE »**, Place de Colombier/Charles de Gaulle, 2 Rue d'Alma, Rennes



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FRIDAY 9 SEPTEMBER 2022

9h00 – 9h40 : PLENARY LECTURER - Coated Biodegradable Polymers

- Prof. D. NEDELICU, Technical Univ. « Gheorhe Asachi » Iasi, Romania, Manager of Fine Mechanics and Nanotechnology Laboratory, Romania

9h40 – 10h40 : SCIENTIFIC SESSION (3 speakers x 20') – Session Chairamn: Prof. Dumitru NEDELICU

Vidosav Majstorovic, Vladimir Simeunovic, Radivoje Mitrovic, Dragan Stosic, Sonja Dimitrijevic and Zarko Miskovic, How to apply the ERP model for Smart Mining?

Enora LEVREL, Siti Nursyafinaz Binti Mohd Safie, Pierrick Malécot, Virgile Lambert, Michael Fontaine, Loic Hallez, Séverine Lallemand, Functional correlation surface texture / grip of a deposit : case of NiP

Vojin Vukadinović, Jovan Živković, Dragan Đurđanović, Vidosav Majstorović, Management of tools in digital manufacturing - A case study

10h40 – 11h00 : Coffee Break

11h00 – 12h00 : Scientific Session (3 speakers x 20') – Session Chairman Prof. Vidosav MAJSTOROVIC

Gheorghe Nagîț, Laurențiu Slătineanu, Oana Dodun, Viorel Păunoiu, Marius-Andrei Mihai, Marius-Ionuț Rîpanu, Adelina Hrițuc, Ioan Surugiu, The Influence of Lubrication on the Roughness of the Vibroburnished Surface

Vytautas Ostasevicius, Sandra Mikuckyte, Rimvydas Gaidys, Vytautas Jurenas, Vytautas Daniulaitis, Digital Twins for Micro Machining

Alina Marguta, Simona-Nicoleta Mazurchevici, Constantin Carausu and Dumitru Nedelcu, Biodegradable polymer properties through ceramic coatings

12h00 – 13h40 : LUNCH – Staff Cafeteria

13h40-14h20 : PLENARY LECTURER - Management of tools in digital manufacturing. A case study

- Prof. V. MAJSTOROVIC, University of Belgrade, Faculty of Mechanical Engineering, Serbia

14h20 – 15h40 : Online Scientific Session (3 speakers x 20') – Session Chairman: Assoc. Prof. Adinel GAVRUS

<https://zoom.us/j/94108154964?pwd=US9wSXh1TWlrUG5jZW52L0ViQ21PZz09>

N. Baroiu, V.G. Teodor, V. Paunoiu, G.A. Morosanu and R.S. Craciun, Study of the enwrapping of the front profiles of the active elements of a three-screw compressor

G.A. Morosanu, V.G. Teodor, V. Paunoiu, R.S. Craciun and N. Baroiu, Quality characteristics analysis for the assembly of the elements from the construction of a mechanism for adjusting the seats in the automotive industry

Cezarina Afteni, Mitica Afteni and Gabriel-Radu Frumusanu, Study on the Application of the Holistic Optimization Method of the Manufacturing Process in the Case of a Reduced Instances Database

Viorel PAUNOIU, Virgil TEODOR, Nicusor BAROIU, Georgiana-Alexandra MOROSANU, and Alexandru EPUREANU, Contribution to a new method for deep drawing with kinetic control

15h40 – 16h00 : Coffee Break

16h00 – 17h00 : Meeting of Steering International Committee

SATURDAY 10 SEPTEMBER 2022

Excursion to Mont Saint-Michel, Normandie (France)

9h30 Departure to Mont Saint-Michel – in the front of INSA Rennes Administrative Building (Bat. 2)

17h00 Arrival from Mont Saint-Michel – in the front of INSA Rennes Administrative Building (Bat. 2)