

“Dunarea de Jos” University of Galati
ReForm Multidisciplinary Research Platform
Center of Excellence Polymer Processing
Domneasca Street, 47, Galați, România
<http://www.reform.ugal.ro>



“Dunarea de Jos” University of Galați
ReForm Multidisciplinary Research Platform
Center of Excellence in Polymer Processing



New trends in numerical modeling and experimental characterization of advanced materials behavior

Invited speaker
Assoc. prof. Adinel Gavrus, INSA Rennes

Organization Committee

Felicia STAN (felicia.stan@ugal.ro)
Cătălin FETECĂU (catalin.fetecau@ugal.ro)
Nicoleta-Violeta STANCIU (nicoleta.stanciu@ugal.ro)

25 – 28 February 2020
Room B32, Engineering Faculty
Galați, Romania

Doctoral Schools of “Dunărea de Jos” University of Galati



Center of Excellence
Polymer Processing

PROGRAMME

Tuesday, 25 February 2020

9⁰⁰ – 9³⁰

Opening Address

Assoc. prof. Adinel Gavrus & Prof. Cătălin Fetecău

9³⁰ – 12³⁰

New Trends on Numerical and Experimental Materials Rheology and Tribology Analysis with Applications to Rapid and Severe Forming Processes. First part

Assoc. prof. Adinel Gavrus

Wednesday, 26 February 2020

9³⁰ – 12³⁰

New Trends on Numerical and Experimental Materials Rheology and Tribology Analysis with Applications to Rapid and Severe Forming Processes. Second part

Assoc. prof. Adinel Gavrus

Thursday, 27 February 2020

9³⁰ – 12³⁰

Constructal Theory Application of Prof. A. BEJAN to proof Maximal Work Principle in Materials Flows and Plasticity using an Optimal Variational Computation

Assoc. prof. Adinel Gavrus

Friday, 28 February 2020

9³⁰ – 12³⁰

Recent Numerical and Experimental Improvements to Analyze the Structures and Materials Behaviour under Choc, Impact and Severe Loadings using a SHPB Mecatronic Propulsion System and Non-Conventional Devices

Assoc. prof. Adinel Gavrus

MISSION

The Center of Excellence in Polymer Processing is a multidisciplinary research center that provides a unique opportunity to develop novel research ideas that involve the government, private and academic sectors.

OBJECTIVE

The strategic objective of Polymer Processing Center is to become a focal point for scientists working on the development of advanced materials and nanotechnologies in South-Eastern Romania.

The goals of Polymer Processing Center are to build a base of research that will significantly impact industrial practice and productivity through the application of advanced materials and manufacturing nanotechnologies.

RESEARCH AREAS

Manufacturing of Polymers and Polymer Composites

- Fabrication, developing and processing of polymers and polymer nanocomposites
- Design for injection molding and injection molded parts
- Polymer recycle and evaluation of material performance
- Machining of polymers and polymer composite

Additive Manufacturing

- Manufacturing and characterization of polymers and polymer nanocomposite filaments for 3D printing
- Processing-structure-property relationships

Characterization of Polymers and Polymer Composites

- Material characterization based on instrumented indentation
- Materials characterization and knowledge of adhesion, fracture mechanics and damage mechanisms of nanomaterials.
- Processing-structure-property relationships
- Rheological characterization of polymers and polymer nanocomposites

Numerical Modeling of Materials and Manufacturing Processes

- Modeling and simulation of crack propagation in complex engineering structures
- Modeling and simulation of injection molding process
- Manufacturing design and product life cycle management
- Design of molds and injection molded parts