

# PROGRAM SIMTERM2024

ČETVRTAK/THURSDAY 24.10.2024.

## RENEWABLE ENERGY SOURCES

Faculty of Mechanical Engineering in Niš

Predsedavajući/Chair Marko Mančić

- 10:00÷11:45
1. Aleksandar Petkovic, Extension of Vlasinske Hydropower Scheme to Pumped Storage
  2. Emina Petrović, Deep Learning Semantic Segmentation For Mapping Agricultural Waste Sources With The Goal Of Valorizing Energy Through Biogas Production From Agricultural Waste - Vineyard Case Study
  3. Boban Nikolić, Raw Materials for Biodiesel Production - Possibilities and Characteristics
  4. Danijela Kardaš Ančić, Experimental and Theoretic Study of the Impact of Real Atmospheric Conditions on Photovoltaic Module Temperature
  5. Maria-Styliani Daraki, Applications and Challenges of Digital Twins of Floating Wind Turbines
  6. Stefan Djordjevic, Enhancement of PV Panel's Power Using Closed Back Side Cooling System
  7. Vladimir Kitanovski, Smart Time Temperature Ecolabels (TTE) as Catalysts for Reducing Food Waste: Enhancing Resource Efficiency within the WEFEX Nexus Framework

11:45÷12:00

Kafe pauza/Coffee break

## PANEL TOPLANE SRBIJE – POČETAK GREJNE SEZONE 2024/2025

Faculty of Mechanical Engineering in Niš

Moderator Mirjana Laković

- 12:00÷14:30
- Dejan Stojanović, direktor PU „Toplane Srbije“
- Goran Matović, EBRD
- Ivana Kalanja, Izvršni direktor za proizvodnju toplotne energije JKP „Beogradske elektrane“
- Predrag Milačić, direktor JKP „Gradska Toplana Niš“
- Andreja Ilić, direktor „Energetika“ doo Kragujevac



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### FLOW, HEAT AND MASS TRANSFER, COMBUSTION

Faculty of Mechanical Engineering in Niš

Predsedavajući/Chair | Živojin Stamenković, Mladen Tomić

- 15:30÷17:45
1. **Jasmina Bogdanović Jovanović, Averaged Axisymmetric Flow Surfaces in Hydraulic Turbomachines**
  2. **Marija Živković, Effect of Properties of Working Fluids on the Efficiency of a Low-Temperature Organic Rankine Cycle**
  3. **Lidija Joleska Bureska, Analysis the Impact of Coal Mixing on Boiler Characteristics**
  4. **Milan Đorđević, Effect of Wall Heat Flux on Flow and Heat Transfer Characteristics in Coiled Corrugated Pipes**
  5. **Nenad Tomić, Optimizing Flue Gas Recirculation for Enhanced Efficiency in Biomass-Fired Boilers: A Comprehensive Study**
  6. **Jovica Podunavac, Determining Gas and Gas Mixture Viscosity Across Wide Temperature Ranges: Refinements and Predictive Models**
  7. **Luka Marinović, Influence of Flue Gas Recirculation on Nitrogen Oxides Emission during Natural Gas Combustion**
  8. **Luka Marinović, Water Vapor Condensation from Combustion Products and its Usage Possibilities**

17:45÷18:00

Kafe pauza/Coffee break

### MATHEMATICAL MODELING AND NUMERICAL SIMULATION

Faculty of Mechanical Engineering in Niš

Predsedavajući/Chair | Dušan Petković

- 18:00÷19:00
1. **Aleksandar Petkovic, Numerical Modeling and Analyses of Hydro-Electro-Mechanical Transient Processes of HPP Bistrica For the State After Refurbishment and Upgrading**
  2. **Nenad Crnomarković, Wall Variables for Different Effective Thermal Conductivities of the Furnace Waterwalls Ash Deposits**
  3. **Dušan Petković, Material Selection of Wave Energy Turbine Blade by using MCDM Solver**
  4. **Nikola Četenović, Three-dimensional Numerical Investigation of Fluidized Bed Gasification in a Pilot Plant Gasifier: Fluid Flow**



# PROGRAM SIMTERM2024

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## POSTER SESSION

15:00÷18:00

1. Ivan Popović, Determining the Reliability Function of the Thermal Power System in the Power Plant Nikola Tesla, Block B2
2. Milan Đorđević, Potential of Evaporative Cooling in the Climate of Serbia
3. Spasoje D. Belošević, Application of Cold Pressing Process to Develop Potential Functional and Sensory Acceptable Red Beet Microgreens-Apple Beverage: Total Phenolic Content and Antioxidant Properties
4. Vladimir Mijakovski, Natural Draught Cooling Tower Operation During Winter
5. Spasoje D. Belošević, Aquaponic System in the Cultivation of Microgreens and Sprouts: A Review
6. Jasmina Mitic Stojanovic, Thermotechnical Installations For A Special Hospital (Gynecology And Surgery) With A Pharmacy, Floors P0+P+2, On C.P.N. 394/34 Cm Nis-Cele Kula, Street Vizantijski Bulevar In Nis
7. Danka Kostadinović, Assessment of Floating Solar Panels Potential for Electricity Generation in the Adriatic Sea
8. Danka Kostadinović, Influence of Building Shape on Wind Flow: CFD simulations
9. Milić D. Erić, Results of the Temperature Variation in Experimental Research of the Kolubara Lignite Drying Process in Fluidized Bed
10. Milica Nikodijević Đorđević, Heat Transfer Effects on the EMHD Flow of Ternary Hybrid Nanoliquid in the Channel With Porous Medium
11. Filip Mojsovski, Paddy Drying in Mixed-flow Tower-type Dryer
12. Aleksandra Janković, Development of a mathematical model of a drum steam boiler by using the automatic control system - second step
13. Stefan M. Marjanović, Cultivation Technology and Feed Utilization by Common Carp (Cyprinus Carpio) Using Different Protein Sources
14. Stefan M. Marjanović, Potential of Insects As a Protein Source in Commercial Fish Feed Production
15. Jovana Buha-Marković, Lignite combustion in Thermal power plant Kolubara A as a source of mercury pollution
16. Jovana Anđelković, Ecological and Energetic Optimization of the Operating Parameters of the Process of Thermal Plasma Gasification of Sewage Sludge

20:00

Conference Dinner restaurant Biser



# PROGRAM SIMTERM2024

PETAK/FRIDAY 25.10.2024.

## POSTER SESSION

10:00÷13:00

1. Maja Brborić, Examining PAHs Presence in Novi Sad's Ambient air: Sources and Assessment
2. Reyhaneh Loni , Developing Solar Thermal Power Plant to Improve Energy Governance
3. Reyhaneh Loni , Developing Renewable Energy Sources: Enhancing Energy Governance for a Sustainable Future
4. Reyhaneh Loni, Developing Solar Cavity receivers to Improve Energy Governance
5. Evangelos Bellos, Theoretical thermodynamic analysis of the organic Rankine cycle
6. Saša Pavlović , Numerical study on thermal energy storage system integrated flat plate solar collectors in buildings
7. Saša Milanović, A Model of Two-Phase Flow in Pneumatic Transport of Powder Material
8. Goran Vučković, Energy Performance Investigation for Residential Air Source Heat Pump in Summer Change Over Regimes
9. Dejan Mitrović, Measurement elements and SCADA system operation in the remote heating system of the Faculty of Mechanical Engineering
10. Iliya Iliev, Investigation of Processes in the "Reformer-Fuel Cell" System by the Mathematical Modeling Method
11. Vladan S. Jovanović, Optimizing Energy Consumption in School Buildings: Implementing a Heating Control Schedule Based on School Workdays
12. Aleksandar Pantić, Advanced Modeling and Simulation of Solar Cells and PV Modules by using PVSyst and Matlab
13. Dragana Dimitrijević Jovanović, Machine Learning for Roof Type Detection and Classification Review
14. Milena Mančić, Digital Twins in Biogas Production: Challenges, Technological Potentials, and Key Sensor Parameters
15. Jelena Petrović, Mixed convective EMHD flow of a ternary hybrid nanofluid in a vertical channel with porous medium

13:00 -14:00

ZATVARANJE KONFERENCIJE/CLOSING OF THE CONFERENCE