

Location of the Workshop:

Engineering Informatics Centre (Room MIK 25)
Institute of Technology
Hungarian University of Agriculture and Life Sciences
Páter K. u. 1., Gödöllő, H-2100 Hungary
Google maps: 47.59254220146795, 19.3648069886929

Google Meet link:
<https://meet.google.com/uhy-jrfr-ppm>



HUNGARIAN UNIVERSITY OF AGRICULTURE AND LIFE SCIENCES

31st WORKSHOP ON

ENERGY AND ENVIRONMENT

PROGRAM

December 11-12, 2025

Gödöllő, Hungary

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Program

December 11 (Thursday)

14.30-17.00 Registration
Visiting the Department of Physics
Visiting the solar installations

December 12 (Friday)

08.30-08.45 Opening the Workshop by:
Prof. I. Farkas Founding Chairman of the Workshop
Hungarian University of Agriculture and Life Sciences, Gödöllő, Hungary
Prof. I. Szabó Vice rector for Education and International Relations
Hungarian University of Agriculture and Life Sciences, Gödöllő, Hungary
Prof. L. Kátai Deputy director of Institute of Technology
Hungarian University of Agriculture and Life Sciences, Gödöllő, Hungary
Dr. L. Székely Director of Institute of Mathematics and Basic Science
Hungarian University of Agriculture and Life Sciences, Gödöllő, Hungary

Session 1

Chairmen: Prof. I. Farkas and Prof. L. Kátai

08.45-09.00 I. Farkas: GROWTH AND TECHNOLOGICAL INNOVATION IN SOLAR PHOTOVOLTAIC SECTOR
09.00-09.10 P. Weihs, M. Thon, H. Zsiboracs, N. Baranyai, V. Andras., C. Gützer, J. Eitzinger and S. Thaler: DETERMINATION OF THE LENGTH OF DARK DOLDRUMS PERIODS BASED ON METEOROLOGICAL DATA
09.10-09.20 D. Rusirawan, M. Bozikova, M. Libra, and I. Farkas: DEVELOPMENT OF SOLAR ENERGY COURSE IN VIEW OF “THE 4TH GENERATION UNIVERSITY”: A PRELIMINARY DISCUSSION
09.20-09.30 S. Bartha, F. Carvalheiro, L.C. Duarte, N. Antal: ENVIRONMENTAL INFLUENCE OF THE SEAWEEDES GROWING IN BLACK SEA ROMANIAN COASTAL AREA AND THE POSSIBILITY TO USE THE BIOMASS AS FEEDSTOCK IN BIOREFINERY TECHNOLOGY
09.30-09.40 E. Imre, P. Felker, Zs. Hortobágyi, G. Mile, Z. Kapros, D.K. Mwinken, A. Akate, Á. Bálint, Á. Nemcsics, A. Ürmös, I. Szén, T. Pálincás, L. Tóth, T. Goda, T. Weidinger: SOME NOTES ON THE DISTRIBUTION OF WIND SPEED OVER TRUNCATED PYRAMID SHAPED LANDFILL HILLS WITH SHORT GRASS – APPLICATION OF BERNOULLI THEOREM
09.40-09.50 Á. Bálint, Z. Túri, X. Wang, Cs. Mészáros: LOCAL-SCALE ASSESSMENT OF AIRBORNE HEAVY METAL DEPOSITION ON SZENTENDRE ISLAND (HUNGARY) USING MOSS BIOMONITORING
09.50-10.00 T. Negash, I. Seres, I. Farkas: OPTIMIZATION OF RENEWABLE ENERGY INTEGRATION USING REINFORCEMENT LEARNING
10.00-10.10 Ahssan M.A. Alshibil, Mohammed H. Ali, Muthanna Abd Ali Awad, P. Víg, I. Farkas: THERMAL MANAGEMENT INSIGHTS INTO HYBRID SOLAR MODULES TOWARD ENHANCED SUSTAINABILITY
10.10-10.20 Mohammed H. Ali, Ahssan M.A. Alshibil, Muthanna Abd Ali Awad, P. Víg, I. Farkas, Z. Kurjak: PASSIVE GEOTHERMAL COOLING OF UNDERGROUND GARAGES: FIELD STUDY AND THERMAL ANALYSIS
10.20-10.30 M. Rátkai, G. Géczi, R. Kicsiny, L. Székely: PROPOSING USER-FRIENDLY MATHEMATICAL MODELS FOR A RECENTLY INVENTED SOLAR POT
10.30-11.00 COFFE BREAK

Session 2

Chairmen: Prof. D. Rusirawan and Dr. P. Víg

11.00-11.10 A. Altaye, P. Víg, I. Farkas: COMPARATIVE EVALUATION OF ANN, CNN, AND ANFIS MODELS FOR SHORT-TERM PHOTOVOLTAIC POWER FORECASTING
11.10-11.20 Quankun Zhu, I. Farkas and J. Buzás: EXPERIMENTAL ANALYSIS OF SOLAR DRYING FOR APPLE SLICE UNDER DIFFERENT LOADING CAPACITIES
11.20-11.30 S. Brbhan, Z. Szamosi: HYBRID OPTICAL-THERMAL LINEAR FRESNEL RECEIVERS WITH SINGLE AND DUAL NON-ACUUM TUBES: SIMULATION AND EXPERIMENTAL ASSESSMENT
11.30-11.40 M.S. Deghiche, P. Víg: ENHANCING HYBRID PV/T SYSTEM EFFICIENCY THROUGH INTELLIGENT AI-BASED OPTIMIZATION
11.40-11.50 A. Fadillah, A. Taufik, D. Rusirawan: FMECA AND FTA OF A CENTRIFUGAL AIR COMPRESSOR AT THE NITRIC ACID PLANT
11.50-12.00 F.V. Haetami, A. Taufik, D.I. Permana, D. Rusirawan: GAS ENGINE VIBRATION: AN INTRODUCTION
12.00-12.10 M.F. Hidayatullah, A. Taufik, D. Rusirawan: RELIABILITY CENTERED MAINTENANCE PLAN: CASE STUDY ON CENTRIFUGAL PUMP
12.10-12.20 M.A. Samloy, A. Taufik, D.I. Permana, D. Rusirawan: PERFORMANCE EVALUATION OF CENTRIFUGAL PUMP USING INFRARED THERMOGRAPHY: AN INITIAL STUDY
12.20-12.30 A. Shidiq, A. Taufik, D. I. Permana, D. Rusirawan: CENTRIFUGAL PUMP VIBRATION: AN OVERVIEW
12.30-12.40 J.C. Zahrawan, A. Taufik, D.I. Permana, D. Rusirawan: ROTARY TWIN SCREW AIR COMPRESSOR: VIBRATION PHENOMENA
12.40-14.00 LUNCH BREAK

Session 3

Chairmen: Dr. I. Seres and Dr. S. Bartha

14.00-14.10 S. Bartha, F. Carvalheiro, L.C. Duarte, P. L. Martins, C. Oliveira, N. Antal: PRODUCTION OF HUMINS FROM LIGNOCELLULOSIC BIOMASS
14.10-14.20 G. Géczy, I. Seres: ENVIRONMENTAL MONITORING SYSTEM OF THE RADNANO INFINITY ASTRONAUT DOSIMETER
14.20-14.30 F. Touaref, I. Seres and I. Farkas: SMART IOT-BASED THERMAL AND SURFACE MANAGEMENT SYSTEM FOR PV MODULES WITH CYLINDRO-PARABOLIC COLLECTOR
14.30-14.40 L. Hartawan, D. Rusirawan, I. Farkas: COMPARISON OF COMMUNICATION FOR WIRELESS SENSOR NETWORK IN SMART FARMING APPLICATIONS
14.40-14.50 M. Usman, J. Buzás and I. Farkas: PERFORMANCE ANALYSIS OF SOLAR ORGANIC RANKINE CYCLES USING ISOBUTANE, R134a AND R245fa AS WORKING FLUIDS
14.50-15.00 B. Varga, J. Buzás, R. Keresztes: APPLICATION OF SOLDER RESIST COATING MEASUREMENT IN ELECTRONICS MANUFACTURING
15.00-15.10 A.F. Alparuqi, D. Rusirawan and M. Božikova: THERMAL EFFECT OF PASSIVE COMPONENTS ON THE PHOTOVOLTAIC MODULE
15.10-15.20 N.D. Anggraeni, I. Seres, I. Farkas: THEMATIC EVOLUTION OF SEMI-TRANSPARENT PHOTOVOLTAIC RESEARCH IN BIBLIOMETRIC APPROACH
15.20-15.30 A. Mulyanegara, M.P.N. Sirodz, N. Nugraha, D. Rusirawan: EFFICIENCY ANALYSIS OF A 300 W_p PUBLIC ELECTRIC VEHICLE CHARGING STATION AND A 5 kW/220 V ELECTRIC GENERATOR FOR RECHARGING ELECTRIC MOTOR VEHICLES
15.30-15.40 A.J. Pamungkas, D. Rusirawan, I. Farkas: ACTIVATION OF 1 kW_p SOLAR POWER SYSTEM AT THE ITENAS BANDUNG: IDENTIFICATION AND PROBLEM SOLVING
15.40-16.00 CLOSING