



TU - Sofia
Faculty and College – Sliven

National conference with international participation
ENGINEERING AND NATURAL SCIENCES 2024

June 21 - June 22, 2024, USOB "Lazur" - Sozopol

http://tu-sliven.com/Konference/EngNatSci/EngNatSci_2024.html

AGENDA

Section "Mechanical Science, Machine Mechanics, Transport"

Chairman: Assoc. Prof. Eng. Mina Tsoneva, PhD
Secretary: Assistant Prof. Eng. Ina Nikolova, PhD

FRIDAY, JUNE 21, 2024

13:00-13:30	<u>SECTION MEETING</u>	Hall 1
13:00-13:10	Milko YORDANOV, Hristo UZUNOV, Silvia DECHKOVA, Vasil UZUNOV- EXPERIMENTAL AND NUMERICAL STUDY OF A STEERING LINKAGE RUPTURE IN A CAR	
13:10-13:20	Plamen MATZINSKI, Hristo UZUNOV, Silvia DECHKOVA, Kaloyan DIMITROV - ASSESSMENT OF MOTOR VEHICLE DRIVER BEHAVIOR AND ACCIDENT PREVENTABILITY IN THE EVENT OF A COLLISION RISK WITH A PEDESTRIAN	
13:20-13:30	Kaloyan DIMITROV - STATISTICAL MODEL FOR RESEARCH AND ANALYSIS OF THE CURRENT TECHNICAL CONDITION OF TRUCKS	

POSTER PAPERS

Mihail MILEV, Ivan DIMITROV, Mina TSONEVA- GEOMETRIC MODEL OF AN ROBOT WITH AN ANTHROPOMORPHIC STRUCTURE

AGENDA

Section "Fluid Mechanics, Heat and Mass Transfer"

Chairman: Prof. Eng. Koicho Atanasov, PhD
Secretary: Assistant Prof. Eng. Ivan Ivanov, PhD

FRIDAY, JUNE 21, 2024

13:30-14:10	<u>SECTION MEETING</u>	Hall 1
13:30-13:40	Konstantin KOSTOV - EXERGY ANALYSIS OF WASTE HEAT RECOVERY SYSTEMS	
13:40-13:45	Neven KRYSTEV, Ivan A. PETROV - EFFECT OF HEAT FLUX DENSITY ON COMBUSTION EFFICIENCY IN THE INITIAL FLARE SECTION	





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- 13:45-13:50** Koycho ATANASOV, Ivan IVANOV - ABILITY TO STUDY THE VELOCITY PROFILE OF A COMPOSITE ISOTHERMAL JET
- 13:50-14:00** Ivan Denev - ANALYSIS OF ELECTRICITY PRODUCTION IN BULGARIA FOR 2024
- 14:00-14:10** Petya DIMITROVA, Petar TINOVSKI - SOME PROBLEMS IN CONNECTING A PHOTOVOLTAIC PARK TO THE ENERGY TRANSMISSION NETWORK OF A MANUFACTURING ENTERPRISE

AGENDA

Section "Electrical engineering, automation and information technologies"

Chairman: Assoc. Prof. Eng. Nikolay Nikolov, PhD
Secretary: Assistant prof. Eng. Kremena Dimitrova, PhD

FRIDAY, JUNE 21, 2024

14:10-14:40	<u>SECTION MEETING</u>	Hall 1
14:10-14:20	Gani STAMOV, Militsa KOSTADINOVA-GOCHEVA - ROBUST STABILITY OF SETS FOR UNCERTAIN IMPULSIVE GENE REGULATORY NETWORKS	
14:20-14:30	Evgeniya VASILEVA, Ivelina TAKEVA- BEBEROVA - FORECASTING THE GENERATION OF ELECTRICITY FROM A HYBRID SYSTEM	
14:30-14:40	Nikolay DIMOV, Dimitar NYAGOLOV, Rosen KRYSTEV - ANALYZING OF CRITICAL POINTS OF CORPORATE NETWORK FOR UPGRADING ITS SCALABILITY	

POSTER PAPERS

Symbat SATYBALDY, Dinara BASKANBAYEVA, Nikolay PETROV - IMPLEMENTATION OF AN AUTOMATED EMISSIONS MONITORING SYSTEM AT THE ENTERPRISE

Kremena DIMITROVA, Yuri ZHELYAZKOV, Ivan TORLAKOV - ABOUT CHARACTERISTICS OF THE ASYNCHRONOUS MOTOR

Ekaterina GOSPODINOVA, Cvetelina MIHAILOVA - DIGITAL INFORMATION INFRASTRUCTURE MODAL INTERFACE CONSTRUCTION ALGORITHM

Alexander TOSHKOV - MODELLING AND SIMULATION FRAMEWORKS FOR WIRELESS SENSOR NETWORKS





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Dimitar VASILEV, Alexander TOSHKOV - COMPARISON OF SIMULATORS FOR WIRELESS SENSOR NETWORKS

AGENDA

Section "Materials Science, Mechanical Engineering and Technologies"

Chairman: Prof. Eng. Milko Yordanov, PhD

Secretary: Assistant prof. eng. Sylvester Bozherikov

FRIDAY, JUNE 21, 2024

14:40-15:10

SECTION MEETING

Hall 1

14:40-14:50

Milko YORDANOV - MEASURING CONDITIONS OF MATERIALS BY NANOINDENTATION AND THEIR INFLUENCE ON THE RELIABILITY OF THE RESULTS

14:50-15:00

Krasimir KIROV - QUANTITATIVE X-RAY ANALYSIS OF BORON-ALLOYED HIGH-CHROMIUM WHITE CAST IRONS

POSTER PAPERS

Yordanka SLAVCHEVA - TECHNICAL DRAWING WITH ENGINEERING GRAPHICS

AGENDA

Section "Tourism, food and textile technologies"

Chairman: Assoc. Prof. Eng. Margaret Sivova, PhD

Secretary: Assistant prof. Eng. Tanya Peneva, PhD

FRIDAY, JUNE 21, 2024

15:10-16:00

SECTION MEETING

Hall 1

15:10-15:20

Margaret SIVOVA, Tanya PENEVA, Vasil GANEV- THE INTERACTIVE CARPET MADE OF TEXTILE MATERIALS AS AN INNOVATIVE EDUCATIONAL TOOL IN KINDERGARTEN

15:20-15:30

Tanya PENEVA, Margaret SIVOVA- EXPLORING THE RANGE OF FELT PRODUCTS USED IN THE FASHION INDUSTRY





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15:30-15:40 **Nikolay TRANCHEV, Margaret SIVOVA, Tanya PENEVA** - BASIC TECHNIQUES IN THE CREATION OF FELT NON-WOVEN TEXTILE MATERIAL REGARDING WOOL STRUCTURE AND PROPERTIES

15:40-15:50 **Tanyo HRISTOV, Margaret SIVOVA**- INTERPRETATION OF THE BULGARIAN NATIONAL COSTUME IN THE COLLECTIONS OF NATIVE DESIGNERS AND FASHION BRANDS

15:50-16:00 **Georgi GEORGIEV**- INFLUENCE OF INK LAYERS ON THE QUALITY OF INK JET PRINTED TEXTILE MATERIALS

POSTER PAPERS

Hristo PETROV - CONSTRUCTION FEATURES OF SINGLE-SEAMED SLEEVES FOR WOMEN'S OUTERWEAR

16:00-16:30 **COFFEE BREAK**

AGENDA

Section "Natural Sciences"

Chairman: Prof. Gani Stamov, DSc

Secretary: Assistant Prof. Tsvetelina Mihailova, PhD

FRIDAY, JUNE 21, 2024

16:30-16:50	<u>SECTION MEETING</u>	Hall 1
16:30-16:40	Todor TODOROV, Petio KELEVEDJIEV - ON THE SOLVABILITY OF A FOURTH-ORDER INITIAL VALUE PROBLEM UNDER BARRIER STRIPS CONDITIONS	
16:40-16:50	Gabriela MIHAYLOVA, Petio KELEVEDJIEV - ON THE SOLVABILITY OF A TWO-POINT THIRD-ORDER BOUNDARY VALUE PROBLEM UNDER BARRIER STRIPS	

