XI INTERNATIONAL SCIENTIFIC CONFERENCE

HIGH TECHNOLOGIES. BUSINESS. SOCIETY 2026

INTERNATIONAL SCIENTIFIC CONFERENCE

ARTIFICIAL INTELLIGENCE

PROGRAM

ORGANIZER:

SCIENTIFIC-TECHNICAL UNION OF MECHANICAL ENGINEERING

23 - 26.03.2026
Winter Resort BOROVETS, BULGARIA

TIME SCHEDULE

17.03.2026 – WEDNESDAY

	PUBLICATION OF ALL REPORTS	
17:00	PROCEEDING **"International Scientific Conference "High Technologies. Business. Society"**, ISSN 2535-0005(Print), ISSN 2535-0013 (Online)	**http://www.hightechsociety.eu**
17:00	PROCEEDING **"International Scientific Conference "Artificial Intelligence"**, ISSN (Print), ISSN (Online)	**http://www.conferenceai.eu**

23.03.2026 - MONDAY

16:00 – 20:00	REGISTRATION	IN FRONT OF THE CONFERENCE HALL

24.03.2026 - TUESDAY

08:00 – 10:00	REGISTRATION	IN FRONT OF THE CONFERENCE HALL
10:00 – 10:15	OPENING OF THE CONFERENCES	CONFERENCE HALL
10:15 – 12:00	ORAL PRESENTATIONS	CONFERENCE HALL
12:00	COLLECTIVE PICTURES OF THE PARTICIPANTS	IN FRONT OF HOTEL "ELA"
12:00 - 14:00	**LUNCH BREAK**	THE RESTAURANT OF HOTEL "ELA"
14:00 – 15:00	ORAL PRESENTATIONS	CONFERENCE HALL
15:00 – 16:00	COFFEE BREAK	LOBY BAR OF HOTEL "ELA"
16:00 – 18:00	DISCUSSIONS	

TUESDAY (24.03.)	**10:00 – 16:00**	**POSTER PRESENTATIONS**	**CONFERENCE HALL**
WEDNESDAY (25.03.)	**08:00 – 12:00**		

19:00 – 22:00	**"WELCOME" COCKTAIL**	**THE RESTAURANT OF HOTEL "ELA"**

26.03.2026 - THURSDAY

10:00	OPENING OF THE winter session of XXIII International Congress **MACHINES. TECHNOLOGIES. MATERIALS**	CONFERENCE HALL
10:00	OPENING OF The XIX International Conference for Young Researchers**"TECHNICAL SCIENCES. INDUSTRIAL MANAGEMENT"**	CONFERENCE HALL
	Departure of the participants	

time for presentation 10-12 minutes,
questions after each presentation

SCIENTIFIC PROGRAM

24.03.2026 **10:00 – 10:15**	**OPENING OF THE CONFERENCES** **CHAIRMAN:** **PROF. DSC. GEORGI POPOV**	**CONFERENCE HALL**

24.03.2026 **10:15 – 12:00**	**CHAIR: PROF. DSC. GALINA NIKOLCHEVA**		**CONFERENCE HALL**	
	ORAL PRESENTATIONS	**"ARTIFICIAL INTELLIGENCE"**		
1	INFORMATION THEORY FOR MEDICAL DATA FUSION	Magdalena Punceva[1], Ninfslav Marina[2] [1]MIT Univerzitet Skopje; [2]University of Information Science and Technology, Ohrid	23	NM
2	A UNIFIED ARCHITECTURAL FRAMEWORK FOR RETAIL AI AGENTS BASED ON TIERED FUNCTIONAL DECOMPOSITION	Assoc. Prof. M.Sc. Ioannis Patias, PhD, PMP, MBA Faculty of Mathematics and Informatics, Sofia University "St. Kliment Ohridski", Sofia	01	BG
3	AI ETHICS EDUCATION AS A TOOL TO MINIMIZE RISKS IN MEDICINE	Nikoleta Leventi , Alexandrina Vodenicharova , Vidin Kirkov Medical University of Sofia,	04	BG
	ORAL PRESENTATIONS	**"HIGH TECHNOLOGIES. BUSINESS. SOCIETY 2026"**		
4	THE PERSISTENCE OF CONFLICT: AN EXAMINATION OF TEN CRITICAL FACTORS WHY THE ISRAELI–PALESTINIAN DISPUTE REMAINS UNRESOLVED	Maciej Huczko, PhD Warsaw School of Economics, Warsaw,	05	PL
5	LEGAL REGULATION PROBLEMS IN TRANSPORT LOGISTICS:CHALLENGES AND PROSPECTS	Irakli Kochadze[1], Ana Mgeladze[2]. Georgian Technical University[1] - Tbilisi, Georgia Ivane Javakhishvili Tbilisi State University[2] – Tbilisi, Georgia	06	GE
6	RECONNOITERING IMPLEMENTATION BARRIERS OF INDUSTRIAL SYMBIOSIS THROUGH SOCIAL AND ECONOMIC KPI'S: A COMPARATIVE ANALYSIS APPROACH	Blisard Zani[1], Almudena Muñoz Puche[2] University of Tirana, Albania[1] Centro Tecnológico del Mueble Y la Madera (CETEM), Spain[2]	16	AL ES

12:00	**COLLECTIVE PICTURES OF THE PARTICIPANTS**	**IN FRONT OF HOTEL "ELA"**

12:00 – 14:00	**LUNCH**	**THE RESTAURANT OF HOTEL "ELA"**

time for presentation 10-12 minutes,
questions after each presentation

24.03.2026 14:00 – 15:00	CHAIR: PROF. DSC. KATYA VUTOVA	CONFERENCE HALL

	ORAL PRESENTATIONS	"ARTIFICIAL INTELLIGENCE"		
7	USING LARGE LANGUAGE MODELS FOR EMOTIONAL SUPPORT OF BULGARIAN USERS: A SURVEY	Melania Berbatova Faculty of Mathematics and Informatics - Sofia University "St. Kliment Ohridski",	09	BG
8	IMAGINED PEDESTRIAN ENCOUNTERS: ANALYZING WORLD-MODEL ROLLOUTS IN A REINFORCEMENT LEARNING DRIVING AGENT	M.Sc. Stefan Zlatinov, Ilija Mizhimakoski, Prof. DSc. Gorjan Nadzinski, Prof. DSc. Mile Stankovsk Faculty of Electrical Engineering and Information Technologies – Ss. Cyril and Methodius University in Skopje	10	NM
9	APPLICATION OF ARTIFICIAL INTELLIGENCE IN PRE-UNIVERSITY EDUCATION – CASE STUDY SCHOOLS IN THE MUNICIPALITY OF KAMENICA – KOSOVO	Selami KLAIQI, Alban RAKIPI Faculty of Information Technology, Polytechnic University of Tirana	16	AL
10	ARTIFICIAL INTELLIGENCE APPROACHES FOR MODELING NONLINEAR DYNAMICAL SYSTEMS	Bregan Isufi (PhD Candidate), Assoc. Prof. Dr. Alfred Daci. Polytechnic University of Tirana	12	AL

15:00 – 16:00	COFFEE BREAK	LOBY BAR OF HOTEL "ELA"

16:00 – 18:00	DISCUSSIONS

19:00 – 22:00	"WELCOME" COCKTAIL	THE RESTAURANT OF HOTEL "ELA"

POSTER PRESENTATIONS

TUESDAY (24.03.)	10:00 – 16:00	SESSION	CONFERENCE HALL
WEDNESDAY (25.03.)	08:00 – 12:00	"ARTIFICIAL INTELLIGENCE"	

11	AI-ENHANCED CYBERSECURITY IN CRITICAL INFRASTRUCTURES: A TRITON FRAMEWORK AND REVIEW	Valeri Mladenov[1,*], Gergana Vacheva[1], Sophia Karagiorgou[2], Mariza Konidi[2], Evangelos Kafantaris[2], Ioannis Pastellas[2], Theodora Anastasiou[2], Angie Carillo[3] ,Angeliki Vlachostergiou[3], Alberto Mozo[4], Esteban Martínez-Hoces[4], Thomas Boufikos[5], Panagiotis Radoglou-Grammatikis[5], Luca Demetrio[6] Technical University Sofia[1], UBITECH[2] EXUS[3], Universidad Politécnica de Madrid[4], K3Y[5], Unversity of Genoa[6]	13	BG GR ES IT
12	INTEGRATING AI INTO INSOLVENCY PROCEDURES, CHALLENGES AND OPPORTUNITIES IN ALBANIA	PhD. Teuta Hoxha "Faculty of Social Sciences" Albanian University of Tirana Faculty of Law and Human Sciences Mediterranenan University of Tirana	02	AL

time for presentation 10-12 minutes,
questions after each presentation

13	ARTIFICIAL INTELLIGENCE IN AUDITING AND COMPLIANCE IN THE TELECOMMUNICATIONS INDUSTRY: A COMPARATIVE EMPIRICAL STUDY OF GLOBAL OPERATORS	Ognen Firfov University American College Skopje, North Macedonia	03	NM
14	AN AI-ASSISTED DIGITAL GUIDE FOR CULTURAL AND RELIGIOUS TOURISM INTEGRATING INTERACTIVE MAPS AND TEXT-TO-SPEECH TECHNOLOGIES: A CASE STUDY OF SVISHTOV	PhD Daniela Pencheva University of Economics - Varna,	05	BG
15	ARTIFICIAL INTELLIGENCE AS A TOOL FOR SYSTEMIC MODELLING AND SIMULATION OF ARCHITECTURAL STRATEGIES FOR A SUSTAINABLE FUTURE	Stoyanka Ivanova University of Architecture, Civil Engineering and Geodesy (UACEG) – Sofia	06	BG
16	AI AND DIGITAL ETHICS IN THE AGE OF GENERATIVE SYSTEMS - PRINCIPLES, STANDARDS AND ACCOUNTABILITY ACROSS CULTURES	Ognen Firfov University American College Skopje, North Macedonia	08	NM
17	ARTIFICIAL INTELLIGENCE SUPPORTING HUMAN DECISION-MAKING IN TECHNOLOGICAL CRISES	PhD Student Zapryanova T., Associate Professor, PhD, Eng Radeva, T. Bulgarian Academy of Sciences, Sofia, Bulgaria, Institute of Information and Communication Technologies	11	BG
18	MANAGEMENT AND REGULATION OF ARTIFICIAL INTELLIGENCE MODELS IN PUBLIC ADMINISTRATION: CRYPTOGRAPHIC TRANSPARENCY AND DIGITALIZATION OF LEGAL NORMS	Radoslav Radoslavov Independent researcher, lawyer	14	BG
19	ARTIFICIAL INTELLIGENCE IN DEBTOR-INITIATED BANKRUPTCY PROCEEDINGS	Dr. Teuta Hoxha Faculty of Social Science – Albanian University, Albania Faculty of Law and Human Science - Mediterraneum University of Albania	15	AL
20	ARTIFICIAL INTELLIGENCE IN COMBATING DRUG TRAFFICKING AND DRUG DISTRIBUTION	Nikola Todorov PhD Student	17	BG
21	ARTIFICIAL INTELLIGENCE IN COUNTERINTELLIGENCE MANAGEMENTIN	Dr. Teodora Licheva NTS, Technical Security Section	18	BG
22	ARTIFICIAL INTELLIGENCE IN INTELLIGENCE MANAGEMENT	Dr. Teodora Licheva NTS, Technical Security Section	19	BG
23	ARTIFICIAL INTELLIGENCE IN MILITARY INTELLIGENCE	Prof. Nikolay Radulov, D.Sc, New Bulgarian University	20	BG
24	ARTIFICIAL INTELLIGENCE AND VIRTUAL REALITY – SYNERGY OF RISK MODELING IN THE SECURITY SPHERE	Prof. Nikolay Radulov, D.Sc, New Bulgarian University	21	BG
25	AI-BASED TECHNOLOGIES IN THE AUTHENTICATION OF FINE ART: TOWARD A HYBRID EPISTEMOLOGY OF CULTURAL TRUST	PhD Atanasova D. Y. Sofia, Bulgaria	22	BG

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questions after each presentation

POSTER PRESENTATIONS

TUESDAY (24.03.)	10:00 – 16:00	SESSION	CONFERENCE HALL
WEDNESDAY (25.03.)	08:00 – 12:00	"HIGH TECHNOLOGIES. BUSINESS. SOCIETY 2026"	

26	INVESTIGATION OF POSITIONING ACCURACY IMPROVEMENT METHODS FOR SIGFOX IOT DEVICES THROUGH WIFI MAC ADDRESS ANALYSIS	Masaya Watanabe[1], Takuya Nanjo[1], Tomoo Sigehuzi[2], Satoru Tada[1], Masayuki Yamauchi[1], Takeshi Nishiyone[3], Hironori Wakaoka[3], Shuji Oji[3], Naoki Kabemoto[4], Hiroki Mori[4] ,Takeshi Tanaka[1] and Katia Vutova[5] Hiroshima Institute of Technology, Hiroshima, Japan[1] National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba, Japan[2] Chudenko Corporation, Hiroshima, Japan[3] Interface Corporation, Hiroshima, Japan[4] Institute of Electronics, Bulgarian Academy of Sciences, Sofia, Bulgaria[5]	12	JP BG
27	IMPROVING THE LIVING ENVIRONMENT IN EVACUATION SHELTERS USING LIGHT-EMITTING DIODE LANTERNS AND PARTITIONS	Mana Oobashira[1], Mayumi Tanaka[1], Keiko Ishihara[2], Satoru Tada[3], Masayuki Yamauchi[3], Koji Kakugawa[3], Takeshi Tanaka[3], and Katia Vutova[4] Hiroshima Prefectural Hiroshima Minami High School, Hiroshima, Japan[1] Hiroshima International University, Kure, Japan[2] Hiroshima Institute of Technology, Hiroshima, Japan[3] Institute of Electronics, Bulgarian Academy of Sciences, Sofia, Bulgaria[4]	13	JP BG
28	MACHINE LEARNING PREDICTION OF MECHANICAL PROPERTIES FOR Al-Mg-Si ALLOYS USING A HYBRID DATA SYNTHESIS APPROACH	Mihail Kolev[1], Tatiana Simeonova[1,2] [1]Institute of Metal Science, Equipment and Technologies with Hydro- and Aerodynamics Centre "Acad. A. Balevski", Bulgarian Academy of Sciences, Sofia, [2]Institute of Mechanics, Bulgarian Academy of Sciences, Sofia	19	BG
29	A METHODOLOGICAL FRAMEWORK FOR ACHIEVING SUSTAINABLE HYDROGEN SUPPLY CHAIN PRODUCED VIA BIOGAS-BASED STEAM METHANE REFORMING	Desislava Nikolova, Tanya Valkanova Burgas State University "Prof. dr Assen Zlatarov"	11	BG
30	INFORMATION PROVISION FOR INTER-INSTITUTIONAL INTERACTION IN CYBER INCIDENTS	Vesselina Gagamova, Ivan Hristozov Military Academy "G.S. Rakovski"	18	BG
31	CONTEMPORARY CHALLENGES TO QUALITY MANAGEMENT IN THE CONTEXT OF THE COMPETITIVENESS OF INDUSTRIAL ENTERPRISES	Ivan Genov Technical University of Sofia, Branch Plovdiv	01	BG
32	WAYS TO REDUCE ATMOSPHERIC AIR POLLUTION FROM TRANSPORT IN THE CITY OF KUTAISI THROUGH AN ARTIFICIAL INTELLIGENCE – DRIVEN METHOD	Assoc. Prof. Dr. Natia Kamkamidze. , Assoc. Prof. Dr Lamara Gobejishvili, Asst. Prof. Dr. Nino Tsutskiridze, Assoc. Prof. Dr. Natia Khazaradze Akaki Tsereteli State University	07	GE

time for presentation 10-12 minutes,
questions after each presentation

33	UNCERTAINTY ANALYSIS OF MAN B&W 6S70ME-C DIESEL ENGINE BASED ON MEASURED OPERATING PARAMETERS IN EACH CYLINDER	PhD. Mrzljak Vedran[1], Prof. PhD. Prpić-Oršić Jasna[1], PhD. Anđelić Nikola[1], PhD. Poljak Igor[2] [1]Faculty of Engineering, University of Rijeka [2]Department of maritime sciences, University of Zadar	09	HR
34	CHALLENGES TO EDUCATION OF ENGINEERING STUDENTS IN DISCIPLINES RELATED TO DESIGN AND DOCUMENTATION	Georgieva Desislava, Yaneva Svetlana Technical University of Sofia	02	BG
35	CONNECTION OF STANDARDIZATION TRAINING IN THE EU WITH THE LEVELS OF THE BULGARIAN AND EUROPEAN QUALIFICATION FRAMEWORKS FOR EDUCATIONAL NEEDS	Stanchev Georgi, Ilieva Boriana, Yaneva Svetlana Technical University of Sofia	03	BG
36	INNOVATIONS IN INDUSTRIAL ENTERPRISES: THE ROLE OF AI, IOT, AND AUTOMATION IN ENHANCING COMPETITIVENESS	Slava Petkova Technical University of Sofia branch Plovdiv	14	BG
37	HOW DATA LITERACY LEARNING QUALITY SHAPES STUDENT'S PROFESSIONAL READINESS IN ALBANIA	Teuta Xhindi, Dardane Nuka European University of Tirana	17	AL

NEXT Conference "HIGH TECHNOLOGIES. BUSINESS. SOCIETY 2027"

NEXT Conference "ARTIFICIAL INTELLIGENCE 2027"

22 - 25.03.2027, BOROVETS, HOTEL "ELA"

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time for presentation 10-12 minutes,
questions after each presentation

XXXI INTERNATIONAL SCIENTIFIC AND TECHNICAL CONFERENCE

FOUNDRY 2026

22-24.04.2026, PLEVEN, HOTEL ROSTOV

www.metalcasting.eu

XXXIV INTERNATIONAL SCIENTIFIC CONFERENCE

trans & MOTAUTO'26

22-25.06.2026, VARNA, FRÉDÉRIC JOLIOT-CURIE IHS

www.trans-motauto.com

XII INTERNATIONAL SCIENTIFIC CONGRESS

INNOVATIONS 2026

22-25.06.2026, VARNA, FRÉDÉRIC JOLIOT-CURIE IHS

www.innova-eng.eu

XI INTERNATIONAL SCIENTIFIC CONFERENCE - SUMMER SESSION

INDUSTRY 4.0

24-27.06.2026, VARNA, FRÉDÉRIC JOLIOT-CURIE IHS

www.industry-4.eu

XIV INTERNATIONAL SCIENTIFIC CONGRESS

AGRICULTURAL MACHINERY 2026

24-27.06.2026, VARNA, FRÉDÉRIC JOLIOT-CURIE IHS

www.agrimachinery.net

XIII INTERNATIONAL SCIENTIFIC CONFERENCE

ENGINEERING. TECHNOLOGIES. EDUCATION. SECURITY 2026

31.08-03.09.2026, VARNA, FRÉDÉRIC JOLIOT-CURIE IHS

www.techtos.net

XII INTERNATIONAL SCIENTIFIC CONFERENCE

MATERIAL SCIENCE. NONEQUILIBRIUM PHASE TRANSFORMATIONS 2026

31.08-03.09.2026, VARNA, FRÉDÉRIC JOLIOT-CURIE IHS

www.material-science.eu

XXIII INTERNATIONAL SCIENTIFIC CONGRESS - SUMMER SESSION

MACHINES. TECHNOLOGIES. MATERIALS 2026

02-05.09.2026, VARNA, FRÉDÉRIC JOLIOT-CURIE IHS

www.mtmcongress.com

11TH INTERNATIONAL BAPT CONFERENCE

POWER TRANSMISSIONS 2026

02-05.09.2026, VARNA, FRÉDÉRIC JOLIOT-CURIE IHS

www.bapt.eu