

# INTERNATIONAL CONFERENCE OF NONCONVENTIONAL TECHNOLOGIES

## ICNcT – 19<sup>th</sup> Edition



# PROGRAM

4<sup>th</sup> – 6<sup>th</sup> October 2018  
Timișoara, Romania



**THURSDAY, October 4, 2018**

<b>09.30 - 10.30</b>	<b>REGISTRATION OF PARTICIPANTS</b> UPT, Faculty of Mechanics, Room 105
<b>11.30 - 12.30</b>	<i>Religious, commemorative activities Aurel NANU</i> Cemetery - Cosminului Street
<b>13.00 - 14.30</b>	<i>Commemorative lunch</i> (Fast-food UPT-MV, 1 Mihai Viteazul Street)
<b>15.00 - 18.00</b>	Commemorative Session <i>In memoriam Professor emeritus dr.ing. dr.doc.ș.t. dhc. Aurel Carol NANU</i> (UPT, Faculty of Mechanics, 193 Amphitheater)
<b>19.00</b>	<i>Welcome cocktail</i> offered to <b>ICNcT 2018</b> participants - Faculty of Mechanics, Room 105 - Mihai Viteazul Street 1

**FRIDAY October 5, 2018**

**Location, room: UPT Library, (2B Vasile Pârvan str.) 1st floor**

08:00 – 09:00 **REGISTRATION OF PARTICIPANTS**

09:00 – 09:20 **OPENING SESSION**

- Opening word: *Prof.dr.ing. Richard HERMAN – President ARTN*
- *Welcome words from organizers*
- *Greetings from representative guests*

**09:20 – 11.00 PLENARY SESSION**

**Chairs: Mihai DRAGOMIR, Mihai Aurel ȚÎȚU, Dumitru MNERIE**

**Location, room: UPT Library, (2B Vasile Pârvan str.) 1st floor, K1 Amphitheater**

<b>09.20 - 09.40</b>	ELABORATION OF NONCONVENTIONAL TECHNOLOGICAL METHODS AND EQUIPMENT FOR PRECISIONAL GEARS MANUFACTURING BY MEANS OF PLASTIC MOLDING <i>Ion BOSTAN, Valeriu DULGHERU, Ion BODNARIUC</i>
<b>09.40 - 10.00</b>	DEVELOPING AN OPEN SOURCE FOOT PROSTHESIS FOR 3D PRINTING <i>Rares GHINEA, Daniela POPESCU, Mihai DRAGOMIR, Călin NEAMTU</i>
<b>10.00 - 10.20</b>	CONTRIBUTIONS TO THE OPTIMIZATION OF DIMENSIONAL PROCESSING TECHNOLOGY THROUGH CONTACT BREAK ELECTRIC EROSION (EERC) WITH TRANSFER OBJECT METALLIC BAND <i>Viorel BUCUR, Mihail Aurel ȚÎȚU</i>
<b>10.20 - 10.35</b>	PROPOSAL FOR SEMANTIC UPDATES OF UNCONVENTIONAL TECHNOLOGIES. FUTURE CHALLENGES <i>Titus SLAVICI, Dorin Alexandru IONICĂ, Florentina Raluca DICU, Bogdan BURA</i>
<b>10.35 - 10.50</b>	NONCONVENTIONAL WELDING TECHNOLOGIES RESEARCHED AT NATIONAL R&D INSTITUTE FOR WELDING AND MATERIAL TESTING – ISIM TIMIȘOARA <i>Nicușor – Alin SÎRBU</i>
<b>10.50 - 11.00</b>	CONCENTRATED ENERGIES TO THE BASE OF NONCONVENTIONAL TECHNOLOGIES <i>Dumitru MNERIE, Mihail Aurel TITU</i>



<b>11.00 – 11.30 COFFEE BREAK</b>	
<b>11.00 – 14.00 ORAL SESSION</b>	
<b>Chairs: Valeriu DULGHERU, Nicolae MARINESCU, Viorel BUCUR, Titus SLAVICI</b>	
<b>Location, room : UPT Library, (2B Vasile Pârvan str.) 1st floor, K1 Amphitheater</b>	
<b>11.30 – 11.40</b>	THE PROCESSING OF HYPERBOLOID SURFACES USING WIRE ELECTRICAL DISCHARGE MACHINING – THEORETICAL ASPECTS <i>Călin DENEȘ</i>
<b>11.40 – 11.50</b>	THE PROCESSING OF HYPERBOLOID SURFACES USING WIRE ELECTRICAL DISCHARGE MACHINING – PRACTICAL ASPECTS <i>Călin DENEȘ</i>
<b>11.50 – 12.00</b>	NONCONVENTIONAL MANUFACTURING WORK PREPARATION FOR WIRE EDM MACHINING <i>Gheorghe Ioan POP, Mihail Aurel ȚÎȚU, Vlad Ciprian CUPȘAN</i>
<b>12.00 – 12.10</b>	THE INFLUENCE OF SULFURIC ACID ANODIZING ELECTROCHEMICAL PROCESS ON SURFACE TREATMENT ADHESION <i>Vlad Ciprian CUPȘAN, Mihail Aurel ȚÎȚU, Gheorghe Ioan POP</i>
<b>12.10 – 12.20</b>	A REVERSE ENGINEERING APPROACH FOR QUALITY CONTROL OF A PLANAR CAM <i>Iulian STĂNĂȘEL, Dan CRACIUN, Traian BUIDOȘ</i>
<b>12.20 – 12.30</b>	TESTING OF A ROTARY HEAD FOR ULTRASONICALLY AIDED ELECTRICAL DISCHARGE MACHINING <i>Daniel GHICULESCU, Nicolae MARINESCU, Panagiotis KYRATSIS, Ovidiu ALUPEL, Claudiu PIRNAU</i>
<b>12.30 – 12.40</b>	INFLUENCE OF SOME PROCESS INPUT FACTORS ON THE SURFACE ROUGHNESS AMPLITUDE PARAMETERS AT EDM WHEN USING TUBULAR TOOL ELECTRODES <i>Laurențiu SLĂȚINEANU, Margareta COTEATĂ, Oana DODUN, Gheorghe NAGÎȚ, Ciprian-Iulian MIRCESCU, Irina BEȘLIU BĂNCESCU, Adelina HRITUC</i>
<b>12.40 – 12.50</b>	STUDY ABOUT ALUMINIUM ETCHING <i>Mihaela BOTIȘ</i>
<b>12.50 – 13.00</b>	RAPID PROTOTYPING AS AN AID IN MEDICINE <i>Ralph VERES</i>
<b>13.00 – 13.10</b>	MANAGEMENT OF HEATING SYSTEMS USING MEDIUM POWER BOILERS <i>Nicoleta COJOCARIU, Maria HUMIȚĂ, Simina Ștefania MARIȘ, Mihai JĂDĂNEAȚ</i>
<b>13.10 – 13.20</b>	ACUTE ASPECTS OF THE USE OF CONCENTRATE DIFFERENCES <i>Gabriel MALAIMARE</i>
<b>13.20 – 13.30</b>	NUMBER OF LASER BEAM PASSES INFLUENCE ON SURFACE COLOR TO WOOD MARKING <i>Adrian PETRU, Remus BOBOESCU</i>
<b>13.30 – 13.40</b>	RESEARCH REGARDING POSIBILITIES OF NON CONVENTIONAL TECHNOLOGIES USE IN THE DENTAL ORTHODONTIC APPLIANCES MANUFACTURING <i>Vlad-Florin VÎNĂȚU, Dumitru ȚUCU</i>
<b>13.40 – 13.50</b>	THE INFORMATION SYSTEM OF A MODERN INDUSTRIAL ORGANIZATION WITH BUSINESS IN THE FIELD OF NONCONVENTIONAL TECHNOLOGIES <i>Mihail Aurel ȚÎȚU, Radu MOISESCU</i>
<b>14.00 – 15.00</b>	<i>Lunch</i> (Fast-food UPT-MV, 1 Mihai Viteazul Street)
<b>15.00 – 17.00</b>	General Assembly ARTN „ <i>Aurel NANU</i> ” Amphitheater
<b>17.00 – 19.00</b>	<i>To visit the city</i>
<b>19.00</b>	Festive Dinner



**11.00 – 14.00 POSTER SESSION**

**Chairs: Daniel GHICULESCU, Traian BUIDOȘ, Călin DENEȘ, Richard HERMAN**

BUILDING OF A ROTARY HEAD FOR ULTRASONICALLY AIDED ELECTRICAL DISCHARGE MACHINING  
*Niculae MARINESCU, Daniel GHICULESCU  
Panagiotis KYRATSIS, Ovidiu ALUPEI, Claudiu PIRNAU*

ANALYSIS AND EVALUATION OF THE MAIN PARAMETERS FOR THE 3D PRINTING PROCESS  
*Cristian PISARCIUC*

CHOOSING METHOD OF COMPOSITE MATERIAL FOR THE PRODUCTION OF VEHICLES HOOD  
*Doina MORTOIU, Bogdan TANASOIU,  
Aurelia TANASOIU, Elena Stela MUNCUT, Lucian GAL*

TRASABILITY OF AN AUTOMOBILE BATTERY SENSOR ASSEMBLY  
*Elena Stela MUNCUT, Bogdan TANASOIU, Gheorghe SIMA, Aurelia TANASOIU*

FRICTION STIR PROCESSING OF THE CAST ALUMINUM ALLOY EN AW 5083 (ALMG4,5MN0,7)  
*Lia Nicoleta BOȚILĂ, Radu COJOCARU, Cristian CIUCĂ*

RESEARCH ON SOLAR SINTERING FOR ELECTRICAL CONTACTS  
*Mihai MACHEDON-PISU*

COMPARISON BETWEEN TRADITIONAL MANUFACTURING USING CAD / CAM TECHNOLOGY AND CNC TECHNIQUES IN COMPETITION WITH RAPID PROTOTYPING TECHNOLOGY  
*George BELGIU, C-tin CĂRĂUȘU, Dan ȘERBAN, Cristian TURC*

CONSIDERATIONS REGARDING THE USE OF SU-8 PHOTORESIST IN MEMS TECHNIQUE  
*Maria - Roxana MARINESCU, Marioara AVRAM,  
Cătălin PĂRVULESCU, Corneliu VOIȚINCU, Vasilica ȚUCUREANU, Alina MATEI*

FLEXIBLE UNCONVENTIONAL HYBRID WELDING SYSTEM FSW-US  
*Octavian Victor OANCA, Nicușor- Alin SÎRBU, Gabriela-Victoria MNERIE,  
Emilia Florina BINCHICIU*

MANAGEMENT OF MAINTENANCE FOR PHOTOVOLTAIC SYSTEMS  
*Lucian-Mihai CRIȘAN, Ioan BORZA*

FUNCTIONAL MODEL AND TECHNIQUE FOR SERIES PARTS MADE FROM LIGHT ALLOYS BY THIXOTROPY  
*Emilia Florina BINCHICIU, Radu STEFĂNOIU, Ionelia VOICULESCU, Victor GEANTĂ*

THE USE OF TIMED COLOURED PETRI NETS IN A MANUFACTURING PROCESS MODELING AND SIMULATION  
*Alin POP*

SOLUTIONS FOR THE MODERNISATION OF COLTERM TIMIȘOARA  
*Maria HUMIȚĂ, Nicoleta COJOCARIU, Ștefan-Alfred MARIȘ, Mihai JĂDĂNEANȚ*

EXPERIMENTAL RESEARCH ON THE DEVELOPMENT OF WATER JET CUTTING OF ADVANCED MATERIALS  
*Dan IONESCU, Ion Aurel PERIANU, Gabriela-Victoria MNERIE, Dumitru MNERIE*

INNOVATIVE WAY TO PRODUCE GLASS FOAM IN MICROWAVE FIELD  
*Lucian PAUNESCU, Marius Florin DRAGOESCU, Sorin Mircea AXINTE, Alexandru FITI*

GLASS FOAM FROM BOROSILICATE GLASS WASTE PRODUCED IN MICROWAVE FIELD  
*Lucian PAUNESCU, Marius Florin DRAGOESCU, Sorin Mircea AXINTE, Ana Casandra SEBE*

CONSIDERATIONS REGARDING THE USE OF SU-8 PHOTORESIST IN MEMS TECHNIQUE  
*M.R. MARINESCU, M.AVRAM, C. PĂRVULESCU, C. VOIȚINCUȚ, V.ȚUCUREANU, A. MATEI*

**SATURDAY, October 6, 2018**

**10.00 - 10.30** Closing Ceremony of the ICNcT 2018

**10.30 - 15.00** EXCURSION