Webinar on

3D PRINTING & ADDITIVE MANUFACTURING

JULY 29-30, 2020 | 11:00 – 18:00 EDT
### Day 1 - July 29, 2020

**11:00 - 11:20** Introduction

**11:20 - 12:00** Title: Analysis of the effects of the microstructural characteristics on mechanical properties of 3D-printed basalt fiber-reinforced PLA matrix composites  
*Soon Hyung Hong/Siwon Yu*, KAIST, South Korea

**12:00 - 12:40** Title: High performance flexible transparent electrodes fabricated by electric-field driven micro-scale 3D printing and micro transfer technology  
*Xiaoyang Zhu*, Qingdao University Technology, China

**12:40 - 13:20** Title: Food-safe chitosan-zein dual layer coating for water and oil repellent paper substrates  
*Muhammad Rabnawaz*, Michigan State University, USA

**13:20 - 14:00** Lunch

**14:00 - 14:40** Title: Workflow development of an additive manufactured novel implant abutment in titanium  
*Les Kalman*, Western University, Canada

**14:40 - 15:20** Title: Dissolvable tattoo electronics for biomedicine  
*Huanyu Cheng*, Penn State University, USA

**15:20 - 16:00** Title: Self-assembled nanocomposites based on semiconductor quantum dots and porphyrin molecules: Interface chemistry, optical properties and energy relaxation processes  
*Eduard Zenkevich*, National Technical University of Belarus, Belarus

**16:00 - 16:40** Title: Towards non-assembly 3D printing for steerable surgical devices  
*Costanza Culmone*, Delft University of Technology, Netherlands

**16:40 - 17:10** Title: Design of non-assembly mechanisms  
*Kirsten Lussenburg*, Delft University of Technology, Netherlands

**17:10 - 17:50** Title: A cost elimination linear model for 3D printing networks  
*Maria Mavri/Evgenia Fronimaki*, University of Aegean, Greece

**End of Day 1 Sessions**
### Scientific Program

**Day 2 - July 30, 2020**

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Speaker</th>
<th>Institution</th>
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<tr>
<td>11:00 - 11:10</td>
<td>Introduction</td>
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<tr>
<td>11:10 - 11:50</td>
<td>Title: Photocatalytic enhancement of ZnS nanoparticle coated on the ZnO thin film with heat treatment Qiyan Zhang, Nagoya Institute of Technology, Japan</td>
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<td>11:50 - 12:30</td>
<td>Title: Conditioning of and hoc thermomechanical equipment for creep tests: Issues related to creep response prediction Arenas, C.D., Instituto Sabato, Argentina</td>
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<td>12:30 - 13:10</td>
<td>Title: Role of nanotechnology in environment and agriculture sectors: The current and future vision situation Zakaria Fouad, National Research Centre, Egypt</td>
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<td><strong>Lunch (13:10 - 13:50)</strong></td>
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<td>13:50 - 14:30</td>
<td>Title: Effect of rare-earth elements on glass formation in low purity Zr-based metallic glasses Krzysztof Pajor, AGH University of Science and Technology, Poland</td>
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<td>14:30 - 15:10</td>
<td>Title: 4D printing of shape memory polymers: An overview Sara Valvez, University of Beira Interior, Portugal</td>
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<td>15:10 - 15:50</td>
<td>Title: Structural, morphological properties and band alignment in electrodeposited ZnO/MgO superlattice Egwunyenga-Opene Nkechi Josephine, Delta State polytechnic Ogwashi-uku, Nigeria</td>
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<td><strong>Poster Presentation</strong></td>
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<td>15:50 - 16:10</td>
<td>Title: Numerical modeling of the magnetic soft matter response to an oscillating field Alexander Ambarov, Ural Federal University, Russia</td>
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<td>16:10 - 16:30</td>
<td>Title: Theoretical study of the immobilized superparamagnetic ferroparticles Anna Solovyova, Ural Federal University, Russia</td>
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<td>16:30 - 16:50</td>
<td>Title: Synthesis and characterization of reactive silica using halloysite clay Tchanang Gustave, University of Yaounde I, Cameroon</td>
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<td>16:50 - 17:30</td>
<td>Title: New star-shaped and polycatenar nanomaterials with azo and oxadiazole groups. Molecular design, mesomorphism prediction and synthesis Nadezhda V. Usoltseva, Ivanovo State University, Russia</td>
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<td>17:30 - 17:10</td>
<td>Title: Rheological characteristics of “Vaseline-Carbon nanoparticles” compositions as a model system of plastic lubricants Nadezhda V. Usoltseva, Ivanovo State University, Russia</td>
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**End of Day 2 Sessions**
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