

## International Workshop on 3D Printing, 3D Bioprinting, Digital & Additive Manufacturing (I3D18), 2-6 July 2018, Thessaloniki, Greece

### PRELIMINARY PROGRAM

#### Tuesday 3 July

<b>12:00–13:30</b>	<b>Workshop on I3D 1 (Room : Timber Hall 2)</b> <b>Chair: S. Tsimikli, OET, Greece</b>
<b>12:00-12:30</b> <b>INVITED</b>	<b>Hybrid electronics integration by inkjet technology</b> M. Grooten <sup>1</sup> , <i>DoMicro BV</i> <i>Luchthavenweg 10, 5657EB Eindhoven, The Netherlands</i>
<b>12:30-12:45</b> <b>YRA</b> <b>Candidate</b>	<b>3D printed supercapacitors from 2D material inks</b> C. Grotta <sup>1</sup> , P. Sherrell <sup>1</sup> , P. Palczynski <sup>1</sup> , M. Sokolikova <sup>1</sup> , <b>A. Panagiotopoulos<sup>1</sup></b> , C. Mattevi <sup>1</sup> <sup>1</sup> <i>Department of Materials, Imperial College London</i> <i>Royal School of Mines, Exhibition Road, SW7 2AZ London, United Kingdom</i>
<b>12:45-13:00</b>	<b>3D Printed Imaging Phantoms for Smarter SPECT Algorithm</b> J. Babiuch-Hall <sup>1</sup> , K. Kacperski <sup>2</sup> , M. Gierszewska, M. Ustynowicz, W. Adamczyk <sup>1</sup> , A. Korneluk <sup>1</sup> , N. Kuk <sup>1</sup> , K. Ornat <sup>1</sup> , P. Szczypkowski <sup>1</sup> , W. Zdziarska <sup>1</sup> , J. Szczytko <sup>1</sup> <sup>1</sup> <i>Faculty of Physics, University of Warsaw, Warsaw, Poland</i> <sup>2</sup> <i>Department of Medical Physics, Maria Skłodowska-Curie Institute of Oncology Warsaw, Poland</i>
<b>13:00-13:30</b> <b>INVITED</b>	<b>Laser writing of nanomaterials for wearable sensors</b> <b>A. Palla Papavlu</b> <i>National Institute for Laser, Plasma &amp; Radiation Physics (INFLPR), Romania</i>

#### Plenary Session Tuesday 3 July

<b>18:30 - 20:30</b>	<b>PLENARY SESSION NANOTECHNOLOGY 2018 (Room: Grand Petra)</b>
<b>18:30-19:00</b>	<b>Introduction by Prof. S. Logothetidis, ISFOE18 &amp; NN18 Chairman</b>
<b>19:00-19:30</b> <b>PLENARY</b>	<b>Plastic Nanoelectronics for the Internet of Things (IoT)</b> <b>Thomas Anthopoulos</b> <i>Physical Science and Engineering Division, KAUST, Saudi Arabia</i>
<b>19:30-20:00</b> <b>PLENARY</b>	<b>Bio-responsive Hybrid Materials for Regenerative Medicine and Biosensing</b> <b>Molly Stevens</b> <i>Imperial College London, UK</i>
<b>20:00-20:30</b> <b>PLENARY</b>	<b>Nanotechnology, 3D Printing and Organic Electronics in Automotive applications</b> <b>Ashutosh Tomar</b> <i>Jaguar Land Rover, UK</i>

#### Wednesday 4 July

<b>12:00-13:30</b>	<b>Workshop on I3D 2 (Room : Crystal Hall)</b> <b>Chair: M. Gioti, Nanotechnology Lab LTFN, Department of Physics, Aristotle University of Thessaloniki, Greece</b>
<b>12:00-12:30</b> <b>INVITED</b>	<b>Inkjet printing of OLEDs-from large area to high resolution</b> C. Boeffel, M. Gensler, A. Wedel <i>Fraunhofer IAP, Functional Materials and Devices, Geiselbergstr. 69, 14476 Potsdam, Germany</i>
<b>12:30-13:00</b> <b>INVITED</b>	<b>OET hits 7.4% New World Record Efficiency for Single Structure Fully Printed Organic Photovoltaic by Roll to Roll Processes</b> E. Mekeridis <sup>1</sup> , <b>S. Tsimikli<sup>1</sup></b> , A. Zachariadis <sup>2</sup> , E.M. Pechlivani <sup>1</sup> , A. Laskarakis <sup>2</sup> , C. Kapnopoulos <sup>2</sup> , S. Logothetidis <sup>2</sup> , V. Matskos <sup>1</sup> <sup>1</sup> <i>Organic Electronic Technologies P.C. (OET), Antoni Tritsi 21B, Thessaloniki, 57001, Greece</i> <sup>2</sup> <i>Nanotechnology Lab LTFN - Aristotle University of Thessaloniki, 54124, Thessaloniki, Greece</i>
<b>13:00-13:15</b>	<b>Printing with Light: ultrafast printing technologies enabling Flexible Electronics</b> <b>G. Arutinov</b> , M. Giesbers, S. van Waalwijk van Doorn, J. van den Brand <i>Holst Centre / TNO, High Tech Campus 31, Eindhoven, The Netherlands</i>
<b>13:15-13:30</b>	<b>Color- Tailored Polymer OLEDs: Manufacturing and Characterization</b> M. Gioti <sup>2</sup> , D. Kokkinos <sup>1</sup> , K. Stavrou <sup>2</sup> , S. Kassavetis <sup>2</sup> , E. Mekeridis <sup>1</sup> , E.M. Pechlivani <sup>1</sup> , S. Logothetidis <sup>2</sup> <sup>1</sup> <i>Organic Electronic Technologies P.C. (OET), Antoni Tritsi 21B, Thessaloniki, 57001, Greece</i> <sup>2</sup> <i>Nanotechnology Lab LTFN - Aristotle University of Thessaloniki, 54124, Thessaloniki, Greece</i>

<b>15:00-18:15</b>	<b>Workshop on I3D 3 (Room: Crystal Hall)</b> <b>Chair: C. Gravalidis, LTFN, AUTH</b>
<b>15:00-15:30</b> <b>KEYNOTE</b>	<b>Title to be announced soon</b> <b>N. Li Pira</b> C.R.F. S.C.p.A, Italy
<b>15:30-16:00</b> <b>KEYNOTE</b>	<b>Intelligent Nanomanufacturing of Flexible Organic Electronic Devices</b> <b>A. Laskarakis</b> <i>Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Greece</i>
<b>16:00-16:30</b> <b>INVITED</b>	<b>Development of interactive automotive interiors based on integrated printed and smart electronics</b> <b>J. Gomes, J. Fonseca, I. Matos, H. Costa, B. Matos, M. Ribeiro</b> <i>CENTI-Centre for Nanotechnology and Smart Materials Rua Fernando Mesquita, 2785, Portugal</i>
<b>16:30-17:00</b> <b>INVITED</b>	<b>Strategies for Conformable Printed Devices: stretchable, thermoforming and in mold electronics</b> <b>P. Gaucci, A. Loi, C. Delgado, P. Lacharmoise</b> <i>Eurecat, Centre Tecnològic de Catalunya, Functional Printing &amp; Embeded Devices Unit, Printed Electronic Group, Av. d'Ernest Lluch 36, Parc Científic TecnoCampus, 08302-Mataró (Barcelona, Spain)</i>
<b>17:00-17:30</b> <b>INVITED</b>	<b>Scale-up challenges of R&amp;D OPV - From Lab-to-Fab</b> <b>D. Bagnis</b> <i>CSEM Brasil, Brazil</i>
<b>17:30-17:45</b>	<b>Full integration of a printed Inductive charger into the automotive central console</b> <b>A. Califórnia<sup>1</sup>, J. Gomes<sup>1</sup>, I. Matos<sup>1</sup>, H. Costa<sup>1</sup>, B. Matos<sup>1</sup>, M. Ribeiro<sup>1</sup>, S. Melo<sup>2</sup>, J. Grilo<sup>2</sup></b> <sup>1</sup> <i>CENTI-Centre for Nanotechnology and Smart Materials, Portugal</i> <sup>2</sup> <i>Simoldes Plásticos SA, R. Comendador António da Silva Rodrigues 165, Oliveira de Azeméis, Portugal</i>
<b>17:45-18:00</b> <b>PROJECT</b>	<b>Flaw tolerance in architected metamaterials</b> <b>P. Pantidis</b> <i>University of Massachusetts, USA</i>
<b>18:00-18:15</b>	<b>Laser Powder Bed Fusion and heat treatments: tailoring the microstructure of alloys for biomedical applications</b> <b>E. Santecchia<sup>1,2</sup>, P. Mengucci<sup>2</sup>, A. Gatto<sup>3</sup>, E. Bassoli<sup>3</sup>, L. Denti<sup>3</sup>, G. Barucca<sup>2</sup></b> <sup>1</sup> <i>Consorzio Interuniversitario Nazionale per la Scienza e Tecnologia dei Materiali (INSTM - Udr Ancona), Italy</i> <sup>2</sup> <i>Dipartimento SIMAU, Università Politecnica delle Marche, Ancona, Italy</i> <sup>3</sup> <i>Dipartimento DIEF, Università di Modena e Reggio Emilia, Modena, Italy</i>

## Thursday 5 July

<b>15:00-17:30</b>	<b>Workshop on I3D 4 (Room : Crystal Hall)</b> <b>Chair: A. Laskarakis, LTFN, AUTH, Greece</b>
<b>15:00-15:30</b> <b>INVITED</b>	<b>3D Printing of Biomimetic Conjugated Polymers for Wearable Electronics</b> <b>Yue (Jessica) Wang</b> <i>Department of Materials Science and Engineering, University of California, Merced 5200 North Lake Road, Merced, California, USA</i>
<b>15:30-16:00</b> <b>INVITED</b>	<b>Additive manufacturing of micrometer-sized 3D metal objects by FluidFM<sup>®</sup> femtoliter liquid dispensing</b> <b>E. Hepp</b> <i>Cytosurge AG, Sägereistrasse 25, Glattbrugg, Switzerland</i>
<b>16:00-16:30</b> <b>INVITED</b>	<b>Roll-to-Roll pilot line for large-scale manufacturing of microfluidic devices</b> <b>J. Hesse<sup>1</sup>, P. Hütter<sup>1</sup>, M. Smolka<sup>1</sup>, P. Toren<sup>1</sup>, A. Haase<sup>1</sup>, U. Palfinger<sup>1</sup>, D. Nees<sup>1</sup>, S. Ruttoff<sup>1</sup>, C. Schaude<sup>1</sup>, C. Leiner<sup>1</sup>, L. Kuna<sup>1</sup>, J. Hesse<sup>1</sup>, B. Stadlober<sup>1</sup>, U. Giese<sup>2</sup>, T. Maier<sup>2</sup>, E. Melnik<sup>2</sup>, M. Sonnleitner<sup>3</sup>, B. Hierschläger<sup>3</sup>, I. Katzmayer<sup>3</sup>, A. Bauer<sup>4</sup>, M. Thesen<sup>5</sup>, M. Lohse<sup>5</sup></b> <sup>1</sup> <i>MATERIALS Institute, JOANNEUM RESEARCH FmbH, Weiz, Austria</i> , <sup>2</sup> <i>Center for Health &amp; Bioresources, Austrian Institute of Technology GmbH, Wien, Austria</i> , <sup>3</sup> <i>GENSPEED Biotech GmbH, Rainbach, Austria</i> , <sup>4</sup> <i>mb technologies, Fürstenfeld, Austria</i> , <sup>5</sup> <i>micro resist technology GmbH, Berlin, Germany</i>
<b>16:30-17:00</b> <b>INVITED</b>	<b>Fast 3D printing of very large automotive parts: present and future</b> <b>P. Perlo</b> <i>Interactive Fully Electrical Vehicles, I-FEVS, Italy</i>
<b>17:00-17:15</b>	<b>Toward slot-die coating of flexible and large-area organic-light emitting diodes in ambient conditions</b> <b>K. Stavrou<sup>1</sup>, M. Gioti<sup>1</sup>, C. Koutsiaqi<sup>1</sup>, C. Kamaraki<sup>1</sup>, E. Koutsounanos<sup>1</sup>, D. Kokkinos<sup>2</sup>, S. Logothetidis<sup>1</sup></b> <sup>1</sup> <i>Lab for Thin Films - Nanobiomaterials - Nanosystems &amp; Nanometrology (LTFN), Department of Physics, Aristotle University of Thessaloniki, 54124 Thessaloniki, Greece</i> <sup>2</sup> <i>Organic Electronic Technologies, Antoni Tritsi 21b, Thessaloniki, Greece</i>
<b>17:15-17:30</b> <b>EU PROJECT</b>	<b>Real-time melt pool monitoring for process control in additive manufacturing</b> <b>C. Theoharatos, D. Besyris, V. Vassalos, V. Tsagaris</b> <i>Computer Vision Systems, IRIDA Labs S.A., Patras Innovation Hub, Kato-Ano Kastritsiou 4, Patras, Greece</i>

## Friday 6 July

<b>15:30-17:30</b>	<b>WS3: Special Session I3D Bio (Room: Crystal Hall)</b> <b>Chair: Y. Misirlis</b>
<b>15:30-16:00</b> <b>INVITED</b>	<b>Engineering customizable hydrogel inks for 3D tissue and organ printing</b> Alexandra Rutz University of Cambridge, UK
<b>16:00-16:30</b> <b>INVITED</b>	<b>Challenges for Bioprinting and Bioink Design</b> Aylin Sendemir-Urkmez, Ege University, Turkey
<b>16:30-17:00</b> <b>INVITED</b>	<b>3D Printed Personalized Otorhinolaryngology Implants and Bioprinting for Immunomodulation</b> N.E. Vrana Protip Medical & INSERM UMR 1121, France
<b>16:00-16:30</b> <b>INVITED</b>	<b>Challenges for Bioprinting and Bioink Design</b> Aylin Sendemir-Urkmez, Ege University, Turkey
<b>17:00-17:30</b> <b>INVITED</b>	<b>TBA</b> Gloria Pinilla Garcia, REGEMAT 3D, Spain
<b>17:30-18:00</b> <b>INVITED</b>	<b>3D bioprinting of human soft tissues</b> Hanna Berthag, Cellink, Sweden