

## **POLY – CHAR 2019 PROGRAMME (Tentative; subject to change)**

**Registration: 7:30 – 8:30 (everyday) and during breaks**

### **DAY I. SUNDAY, MAY 19, 2019 (POLY-CHAR Short Course)**

0830- 0900	Welcome and Introduction
0900-0950	Sven Henning, Fraunhofer IMWS, Halle, Germany <b>Electron Microscopic Methods to Investigate Morphology and Micromechanical Processes of Polymers</b>
0950- 1040	Jean Marc Saiter, Onyx développement Groupe Nutriset, Rouen, France <b>Time dependence properties and disorder in macromolecular structures</b>
<b>1040- 1110</b>	<b>Tea/Coffee Break</b>
1110-1200	Michael Hess <b>Viscoelastic Properties of Polymers</b>
1200- 1250	Holger Schönherr <b>Morphology, Mechanical Properties and Nanoscale Analysis of Polymer Systems with Atomic Force Microscopy (AFM)</b>
1250- 1320	<b>Tea/Coffee Break</b>
1330- 1420	Jürgen Pionteck <b>PVT for Characterization of Polymers</b>
1420- 1510	Daniela Held <b>Size-exclusion Chromatography as a Useful Tool for the Determination of Macromolecular Properties</b>
1600- 1700	Opening Ceremony including IUPAC Presentation Chief Guest:
<b>1800 – 2000</b>	<b>Reception Dinner</b>

**DAY II. MONDAY, MAY 20, 2019, Hall A (Parallel Session)**

<b>Keynote Lectures</b>	
0830- 0900	Chunye Xu, University of Science and Technology of China <b>Electrochromic Materials and Their Devices</b>
0900- 0930	Takahiro Maruyama, <b>Meijo University, Nagoya, Japan</b> <b>Nanomaterials Research Towards Environmental Applications: Carbon Nanotube and Related Materials</b>
<b>0930 - 1000</b>	<b>Tea/Coffee Break</b>
<b>Symposium: Nanomaterials and Smart Polymers</b>	
1000- 1025	Jürgen Pionteck, Leibniz Institute of Polymer Research Dresden, Hohe Str. 6, 01069 Dresden, Germany CNT and graphene based conductive composites for sensor applications
1025- 1050	B. C. Yadav Nanomaterials and Sensor Research Laboratory, Department of Physics, Babasaheb Bhimrao Ambedkar University Preparation of nanostructured metal oxides in polymer matrix and their applications for the detection of NO <sub>x</sub> Gases
1050- 1105	Gopal Prasad Khanal University of Yamanashi, Kofu, Yamanashi 400-8510, Japan Electrical properties of conventionally synthesized (Bi 0.5 K 0.5 )tio 3 Piezoelectric ceramics
1105- 1120	Vasant V. Chabukswar Nowrosjee Wadia College, V. K. Joag Path, Pune-411001, Maharashtra, INDIA Ecofriendly synthesis of conducting polymer hybrid nanocomposite systems: Applications as gas sensors and recyclable catalysts
1120-1135	V. N. Suryawanshi H. P. T. Arts and R. Y. K. Science College, Nasik, India Synthesis of Lead Oxide Nanoparticles : Effects of Solvents and Surfactant on Structural and Optical Properties
1135 -1150	Kedar Nath Dhakal, Tribhuvan University, Kathmandu, Nepal Electrical and Thermal Properties of Polymer Nanocomposites of Degradable Polymer Matrix with Carbon Nanotubes
1150-1205	Kamal P. Sharma, Meijo University, Nagoya 468-8502, Japan Emerging nanomaterials and their CVD synthesis approach: Reliable to Limited resources
1205- 1220	Ashish Chourasia, H. P. T. Arts and R. Y.K. Science College, Nashik Highly Sensitive Reproducible Ammonia Sensor Based On Poly (3,4-ethylenedioxythiophene)
<b>1220 - 1330</b>	<b>Lunch Break</b>

<b>Symposium : Biomolecules and Biomedical Materials</b>	
1330- 1355	Sven Henning, Fraunhofer IMWS, Halle, Germany <b>Multimodal hybrid materials for regenerative medicine: Manufacturing and morphology of nanofiber scaffolds</b>
1355-1420	Jakub Sirc, Czech Academy of Sciences, IMC, Prague, Czech Republic Hydrogel Implants for Transscleral Drug Delivery into the Eye Globe
1420-1445	Chuanliang Feng, Shanghai Jiao Tong University, Shanghai, China <b>Bioinspired Chiral Supramolecular Hydrogels</b>
1445-1500	Priyapratim Patra, Indian Institute of Technology (ISM), Dhanbad, India <b>Fluorescent gel based on crosslinked glycogen and riboflavin for colon specific delivery of ciprofloxacin and metronidazole</b>
1500-1515	Dipankar Das, University of Siegen, Siegen, Germany <b>Dextrin for the Fabrication of a Sustained Drug Release Matrix</b>
1515-1530	Ram Lochan Aryal, Tribhuvan University, Kathmandu, Nepal <b>Modification of Sugarcane Bagasse as a Natural Functional Biopolymer for the Adsorptive Removal of Phosphate from Aqueous Solution</b>
1530-1545	Fehaid Alsubaie, King Abdulaziz City for Science & Technology, Saudi Arabia <b>Ultrafast Copper-mediated controlled copolymerization of acrylamides: Multifunctional Polymers</b>
1545 - 1615	<b>Tea/Coffee Break</b>

<b>Symposium: Advances in Polymer Synthesis</b>	
1615-1640	N. B. Singh, Sharda University, Greater Noida, India <b>Geopolymer cement – A new inorganic polymer as a binding material for the future</b>
1640-1705	M. K. Deore, K.R.T.Arts, B.H. Commerce & A.M. Science College, Nashik , India <b>Synthesis and characterization of nano LaNiO<sub>3</sub> Perovskite Type Oxide by Hydrothermal Technique</b>
1705-1725	Yunusov Khaydar, Uzbekistan Academy of Sciences, Tashkent, Uzbekistan Synthesis and properties selenium nanoparticles in solution sodium carboxymethylcellulose based on biodegradable, anticancer preparation
1725-1740	Puja Das Karmakar, Indian Institute of Technology (ISM), Dhanbad-826004, India <b>In-situ fabrication of nanocomposite using RAFT mediated copolymer of amylopectin/poly(methacrylic acid)/ TiO<sub>2</sub> NPs</b>
1740-1755	Purabi Bhagabati IIT Guwahati, Facile, Solvent-free Route for Synthesis of Crystalline Poly( $\epsilon$ -Caprolactone) [PCL] and its Biocomposites with Algae Biomass
1755- 1810	Shanta Pokhrel, Tribhuvan University, Kathmandu, NEPAL <b>Biodegradable copolyester based blends: Properties and Applications</b>
1810- 1825	

**DAY II. MONDAY, MAY 20, 2019, Hall B (Parallel session)**

<b>Symposium: Polymer Characterization II</b>	
1000- 1025	Miroslav Slouf, Czech Academy of Sciences, IMC, Prague, Czech Republic <b>The Relation between Morphology and Micromechanical Properties Of Polymer Systems</b>
1025- 1050	Volker Abetz, Helmholtz-Zentrum Geesthacht, Germany <b>Networks from Chemically or Physically Thermoreversibly Binding Polymers</b>
1050- 1115	Zheng Li, Peking University, Beijing, China <b>Viscoelastic Metamaterial with a Low-Frequency Passband for Wave Propagation</b>
1115- 1130	Hubert Eudier, Onyx Company, Nutriset Group, Malaunay, France <b>Rheological behavior of an interpenetrating polymer network obtained From a peanut-based mixture</b>
1130-1145	Shinichi Sakurai, Kyoto Institute of Technology, Kyoto, Japan <b>Exclusive Formation of Stereo-Complex Crystals in Poly(L-lactic acid)/ Poly(D-lactic acid) Blends</b>
1145 -1200	Jyoti Giri, Tribhuvan University, Kathmandu, Nepal <b>Isolation of Micro- and Nanocellulose from Wheat Straw to Fabricate Green Composites of Copolyester and Study Degradation Behavior</b>
1150-1205	
1205- 1220	
<b>1220 - 1330</b>	<b>Lunch Break</b>

<b>Symposium : Polymer Characterization III</b>	
1330- 1355	Valerio Causin, Università di Padova, via Marzolo 1, 35131 Padova, Italy <b>Self assembly pathways of polymers: the fibrillar nanocrystals of poly-3-(hexyl thiophene)</b>
1355-1420	Daniela Held, PSS Polymer Standards Service GmbH, Germany <b>Determining the Chemical Heterogeneity of Ternary Copolymers</b>
1420-1445	Ralf Lach, Polymer Service GmbH Merseburg, Germany <b>Recording microindentation and adhesion tests: Depth-dependent mechanical and adhesive properties of gelatine coatings on plastic films</b>
1445-1500	Josmin P. Pose, Mahatma Gandhi University, Kottayam, Kerala, India <b>Mechanical, Thermal and Visco-elastic Characteristics of XPLE/ Al<sub>2</sub>O<sub>3</sub> Hybrid Nanocomposites:Control of Nanofiller Concentration over Al<sub>2</sub>O<sub>3</sub> Nano assembling in Polymer Phase</b>
1500-1515	Deepika Sharma, Indian Institute of Technology Delhi, New Delhi, India <b>Optimization and Performance Evaluation of Electrospun Aliphatic Polyester-Based Nanofibrous Mats</b>
1515-1530	Sharika Thankappan Nair, Mahatma Gandhi University, Kottayam, India <b>Polypropylene/Natural Rubber Based Thermoplastic Elastomer Blends Containing MWCNTs as Electromagnetic Interference Shield</b>
1530-1545	
<b>1545 - 1615</b>	<b>Tea/Coffee Break</b>

<b>Symposium: Polymer Characterization I</b>	
1615-1640	Shinichi Sakurai, Kyoto Institute of Technology, Japan <b>Small- and Wide-Angle X-Ray Scattering Studies on Enhanced Crystallization of Poly (L-Lactic Acid) by a Small Amount Addition of Molecular Additives (Plasticizer)</b>
1640-1705	Szczepan Zapotoczny, Jagiellonian University, Krakow, Poland <b>Surface-grafted Conducting Polymer Brushes with Ladder-like Architecture</b>
1705-1720	Bishnu Prasad Neupane, Pokhara University, Kaski, Nepal <b>Synthesis of Hybrid Nanomaterials from Himalayan Honey and Iron-Oxide Nanoparticles and Study their Antimicrobial Activity</b>
1720-1735	Kiran Gali, Indian Institute of Technology, Guwahati, Assam, India <b>The Fermentative Production of Stereospecific Lactic Acid Precursors for Poly (Lactic Acid): A Sustainable Approach to Utilize Cassava based Sago Industry Waste</b>
1735-1750	Jiji Abraham, Mahatma Gandhi University, Kottayam, Kerala, India <b>Ionic Liquid Modified Carbon Nanotube Based Styrene Butadiene Rubber Nanocomposites</b>
1750- 1805	<b>Netra Lal Bhandari, Tribhuvan University, Kathmandu, Nepal</b> Effect of Fiber Treatment and Process Variation on Morphology, Thermal, Mechanical and Water Absorption Behaviours of Natural Fiber Polymer Composites

### **DAY III. TUESDAY, May 21, 2019, Hall A (Parallel Session)**

<b>Keynote Lectures</b>	
0830- 0900	<b>Araceli Flores</b> , Institute for the Structure of Matter, CSIC, Madrid, Spain <b>Nanoindentation in Polymer-Based/Graphene Composites</b>
0900- 0930	Holger Schönherr, University of Siegen, Siegen, Germany, <b>Polymer-Based Biointerfaces and Cell Microenvironments: Exploiting The Vast Toolbox of Polymers for Future Regenerative Medicine</b>
<b>0930 - 1000</b>	<b>Tea/Coffee Break</b>

<b>Symposium: Electronics Sensors</b>	
1000- 1025	Lok Kumar Shrestha, National Institute for Materials Science (NIMS), Japan <b>Self-Assembled Fullerene Nanomaterials for Energy Storage and Sensing</b>
1025- 1050	Chan Chin Han, Universiti Teknologi MARA, Malaysia <b>Dielectric behavior of the solid polymer electrolytes of neat polymers and its immiscible blends</b>
1050- 1105	Szczepan Zapotoczny, Jagiellonian University, Krakow, Poland <b>Surface-grafted Conducting Polymer Brushes with Ladder-like Architecture</b>
1105- 1120	Pravin Adhav, Nowrosjee Wadia College, Pune, MS, India <b>Ultrasensitive Room Temperature Operable Ammonia Sensor Based on Tartaric Acid Doped Poly Para Phenylenediamine</b>
1120-1135	Yaduram Panthi, Czech Academy of Sciences, IMC, Prague, Czech Republic <b>Electronic memory based on conjugated polymers molecularly doped with organic acceptors</b>
1135 -1150	Aruna Ghimire, Tribhuvan University, Kathmandu, Nepal

	<b>Preparation, Characterization and Application of Electrochemical Sensor for Cu(II) Based on Metal Polymer Nanocomposite</b>
1150-1240	<b>Lunch Break</b>

<b>Symposium : Special Symposium - NMR on Biomolecules and Polymers</b>	
1240- 1310	Luminita Duma, Université Technologique de Compiègne, FRANCE <b>Molecular recognition, liquid to solid-state NMR, from imprinted polymer to membrane proteins</b>
1310-1340	Hideo Iwai, Biocenter of Helsinki, FINLAND <b>Protein Splicing and NMR</b>
1340-1410	Laure Guillaudis, Université de Rouen, FRANCE <b>Liquid-state NMR applied to enzyme/substrate/inhibitor</b>
1410-1440	Peter Tolstoy, St Petersburg University, RUSSIA <b>NMR used in studying H-bonds</b>
1440-1510	Ricardo Manriquez, Guadelajara Univesrity, MEXICO <b>Using NMR as quality control for cleaning Tequila</b>
1510-1540	Monique Chan-Huot, Onyx Développement, FRANCE <b>NMR in liquid crystal – alanine racemase</b>
1540-1545	Summary
<b>1545 - 1615</b>	<b>Tea/Coffee Break</b>

### **DAY III. TUESDAY, May 21, 2019, Hall B (Parallel Session)**

<b>Symposium: Polymer Physics, Theory and Simulations</b>	
1000- 1025	Sunit Hendrana, <i>Indonesian Institute of Scinces (LIPI), Indonesia</i> <b>Effect of Unentangled Single Polymer Molecules on Polymer Modification</b>
1025- 1050	Shigeru Okamoto, Nagoya Institute of Technology, Nagoya, Japan <b>Discontinuity in the change of a domain spacing on a temperature drop in three-dimensional morphologies</b>
1050- 1105	Mehrdad. Negahban, University of Nebraska-Lincoln, Lincoln, Nebraska, USA <b>Kinetics-Based Control of Grading in IPN Systems: Analysis, Modeling and Printing</b>
1105- 1120	Jianlin Yi, Peking University, Beijing, China <b>Asymmetric and extraordinary transmission in loss-gain metamaterials</b>
1120-1135	Rongyu Xia, Peking University, Beijing, China <b>Steering elastic shear horizontal waves by tunable locally resonant metasurface</b>
1135 -1150	Rishi Ram Ghimire, Tribhuvan University, Kathmandu, Nepal <b>Fabrication of high performance flexible thin film transistor (Flex-TFT) using electric double layer gate dielectric and nanostructured Oxide as a channel</b>
1150-1205	Rajendra Adhikari, Kathmandu University, Kavre, Nepal <b>Superconductivity in poly(p-phenylene) at high pressure from from first principles calculation</b>
<b>1220 - 1330</b>	<b>Lunch Break</b>

<b>Special Symposium : Nanotechnology for Nepal</b>	
1330-1545	Roundtable discussion
1545 - 1800	Poster Session
<b>POLY-CHAR Sci Com Meeting / Hall B</b>	
1645-1845	Roundtable discussion

#### **DAY IV. WEDNESDAY, May 22, 2019**

<b>Keynote Lectures</b>	
0830- 0900	Peter Mallon, Stellenbosch University, South Africa <b>Physically crosslinked hydrogel films and nanofibres from poly(dimethylsiloxane) grafted amphiphilic copolymers</b>
0900- 0930	Bernhard Blümich, RWTH Aachen University, Aachen, Germany <b>Quality Control of Raw Rubber and Asphalt Pavement by Compact NMR</b>
0930 - 1000	Ralph Cooney, The University of Auckland, New Zealand <b>Greener Surface-Anchored Anti-Bacterials</b>

<b>Symposium: Nanomaterials and Smart Polymers</b>	
1000- 1025	<b>Masaki Tanemura, Nagoya Institute of Technology, Nagoya, Japan</b> Physical functionalization of transparent and flexible polymers
1025- 1050	D. P. Subedi, Kathmandu University, Kavre, Nepal, <b>Surface Treatment of Polypropylene (PP) by Dielectric Barrier Discharge (DBD) Generated in Near Atmospheric Pressure</b>
1050- 1105	Md. Abu Bin Hasan Susan, University of Dhaka, Dhaka 1000, Bangladesh <b>Polymer Nanocomposites with Tunable Size and Distribution from Water-in-Oil Microemulsions</b>
1105- 1120	Pushpendra Kumar, Manipal University Jaipur-303007, Rajasthan, India <b>Porous Silicon Synthesis to produce Nanostructures and its use as Template to Confine Malachite green</b>
1120-1135	<u>Amit Kumar, Indian Institute of Technology Guwahati, Assam 781039, India,</u> <b>Studies on Blends and Composites of Polylactic Acid</b>
1135 -1150	Bhim P. Kafle, Kathmandu University, Dhulikel, Kavre, Nepal <b>Reduced graphene oxide (rGO) films for hole transport layer for perovskite solar cells</b>
1150-1205	Komal P. Malla, Pokhara University, Kaski, Nepal <b>An approach for Electrospinning and Characterization of Natural Hydroxyapatite Nanoparticle Loaded PCL/PLLA/GEL/VitD3 Blend Fiber Scaffolds for Bone Tissue Engineering</b>
1205- 1220	Subash Sharma, Nagoya Institute of Technology, Japan <b>Controlling shape and layer of graphene crystals in CVD process using Waste plastic as carbon source</b>
<b>1220 - 1330</b>	<b>Lunch Break</b>

<b>Symposium : Polymer Degradation, Recycling and Environment Protection</b>	
1330- 1355	Vimal Katiyar, Institute of Technology Guwahati, Assam, India <b>Functionalization of Cellulose Nanocrystals for Development of Polymeric Bionanocomposites and Applications in Sustainable Chemical Processes</b>
1355-1420	Sagar Pal, <i>Indian Institute of Technology (ISM), Dhanbad – 826004, India.</i> <b>Modified Polysaccharides as Drugs Carrier</b>
1420-1445	Rabindra Prasad Dhakal, Nepal Academy of Science and Technology Sustainable Management of Waste Plastics of Nepal using a Novel Technology: Scope, Economy and Environmental Impact
1445-1500	Bhoj Raj Poudel, Tribhuvan University, Kathmandu, NEPAL <b>Adsorptive Removal of Phosphate from Aqueous Solution on Modified Arundo Donax Stem as Natural Functional Polymers</b>
1500-1515	M. Ashaq Malik, Govt. PG. College, Rajouri, J&K, India <b>Biopolymers and United Nations Sustainable Development Goals (SDGs)</b>
1515-1530	Blessy Joseph, Mahatma Gandhi University, Kottayam, Kerala, India <b>Degradation of 3D printed scaffolds in Phosphate Buffered Saline</b>
1530-1545	Ojashwi Baidya, Tyre Treasures Tyre Treasures - Upcycling for a cleaner, greener Nepal
<b>1545 - 1615</b>	<b>Tea/Coffee Break</b>
<b>1615 - 1800</b>	<b>Closing Ceremony Presentation about POLY-CHAR 2020 and POLY-CHAR 2021</b>

**DAY V. THURSDAY, May 23, 2019**

**EXCURSION TO TRADITIONAL MATERIALS ENRICHED HERITAGE SITES AND INFORMAL DISCUSSION, AND SUMMARY**