

PROGRAMME

Registration: 7:30 – 8:30 (Everyday) and During Breaks

DAY 0: SATURDAY, MAY 18, 2019

1400-1500 Press Conference, Nepal Tourism Board, Pradashani Marg, Kathmandu

1700-1800 Pre-meeting of POLY-CHAR Scientific Committee @ Parkvillage Hotel

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

Chairpersons: Prof. Neelam Shrestha (RECAST, TU) / Dr. Suresh Kumar Dhungel (NAST)	
0830- 0900	Welcome and Introduction
0900-0950	Jürgen Pionteck, Leibniz Institute of Polymer Research Dresden, GERMANY PVT for Characterization of Polymers
0950- 1040	Jean Marc Saiter, Onyx développement Groupe Nutriset, Malaunay, FRANCE Thermal analysis : a focus on thermogravimetry
1040- 1110	Tea/Coffee Break
1110-1200	Michael Hess, University of North Texas, Dento, USA Viscoelastic Properties of Polymers
1200- 1250	Holger Schönherr, University of Siegen, GERMANY Morphology, Mechanical Properties and Nanoscale Analysis of Polymer Systems with Atomic Force Microscopy (AFM)
1250- 1320	Lunch Break
1330- 1420	Daniela Held, Polymer Standards Service GmbH, GERMANY Size-exclusion Chromatography as a Useful Tool for the Determination of Macromolecular Properties
1420- 1510	Sven Henning, Fraunhofer IMWS, Halle, GERMANY Electron Microscopic Methods to Investigate Morphology and Micromechanical Processes of Polymers
1600- 1700	Opening Ceremony including IUPAC Presentation Chief Guest: Rt. Honourable Mr. Jhala Nath Khanal, Former Prime Minister
1800 – 2000	Reception Dinner

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

Keynote Lectures (Chair: Jean Marc Saiter, FRANCE]	
0830- 0910	Chunye Xu, University of Science and Technology of China Electrochromic materials and their devices
0910- 0950	Takahiro Maruyama, Meijo University, Nagoya, Japan Nanomaterials research towards environmental applications: carbon nanotube and related materials
0950 - 1020	Tea/Coffee Break

Symposium 1: Polymer Characterization I (Chair: Shigeru Okamoto, JAPAN)	
1020- 1045	Miroslav Slouf, Czech Academy of Sciences, IMC, Prague, CZECH REPUBLIC The relation between morphology and micromechanical properties of polymer systems
1045- 1110	Volker Abetz, Helmholtz-Zentrum Geesthacht, GERMANY Networks from chemically or physically thermoreversibly binding polymers
1110- 1135	Zheng Li, Peking University, Beijing, CHINA Viscoelastic metamaterial with a low-frequency passband for wave Propagation
1135- 1150	Hubert Eudier, Onyx Company, Nutriset Group, Malaunay, FRANCE Rheological behavior of an interpenetrating polymer network obtained From a peanut-based mixture
1150-1205	Shinichi Sakurai, Kyoto Institute of Technology, Kyoto, JAPAN Exclusive formation of stereo-complex crystals in poly(L-lactic acid)/poly(D-lactic acid) blends
1205 -1220	Jean Marc Saiter, Onyx développement Groupe Nutriset, Rouen, FRANCE Time Dependence Properties and Disorder in Macromolecular Structures
1220-1235	Hom Bahadur Baniya, Kathmandu University, Dhulikhel, Kavre, NEPAL Diagnostics of atmospheric pressure plasma Jet (APPJ) and its application in the surface modification of polypropylene (PP)
1235 - 1330	Lunch Break

Symposium 2: Polymer Characterization II (Hideo Iwai, FINLAND)	
1330- 1355	Valerio Causin, Università di Padova, ITALY Self assembly pathways of polymers: the fibrillar nanocrystals of poly-3-(hexyl thiophene)
1355-1420	Daniela Held, Polymer Standards Service GmbH, GERMANY Determining the chemical heterogeneity of ternary copolymers
1420-1445	Ralf Lach, Polymer Service GmbH Merseburg, GERMANY Recording microindentation and adhesion tests: Depth-dependent mechanical and adhesive properties of gelatine coatings on plastic films
1445-1500	Josmin P. Jose, Mahatma Gandhi University, Kottayam, Kerala, INDIA Mechanical, Thermal and visco-elastic characteristics of XPLE/ Al₂O₃ hybrid nanocomposites: control of nanofiller concentration over Al₂O₃ nanoassembling in polymer phase
1500-1515	Deepika Sharma, Indian Institute of Technology Delhi, New Delhi, INDIA Optimization and performance evaluation of electrospun aliphatic polyester-based nanofibrous mats

1515-1530	Sharika Thankappan Nair, Mahatma Gandhi University, Kottayam, INDIA Polypropylene/natural rubber based thermoplastic elastomer blends containing MWCNTs as electromagnetic interference shield
1545 - 1615	Tea/Coffee Break

Symposium 3: Polymer Characterization III (Chair: Niranjana Parajuli, NEPAL)	
1615-1640	Shinichi Sakurai, Kyoto Institute of Technology, JAPAN 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)
1640-1705	Szczepan Zapotoczny, Jagiellonian University, Krakow, POLAND Surface-grafted conducting polymer brushes with ladder-like architecture
1705-1720	Bishnu Prasad Neupane, Pokhara University, Kaski, NEPAL Synthesis of hybrid nanomaterials from Himalayan honey and iron-oxide nanoparticles and study their antimicrobial activity
1720-1735	Kiran Gali, Indian Institute of Technology, Guwahati, Assam, INDIA The fermentative production of stereospecific lactic acid precursors for poly (lactic acid): a sustainable approach to utilize Cassava based Sago industry waste
1735-1750	Jiji Abraham, Mahatma Gandhi University, Kottayam, Kerala, INDIA Ionic liquid modified carbon nanotube based styrene butadiene rubber nanocomposites
1750- 1805	Netra Lal Bhandari, Tribhuvan University, Kathmandu, NEPAL Effect of fiber treatment and process variation on morphology, thermal, mechanical and water absorption behaviours of natural fiber polymer composites

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

Symposium 4: Nanomaterials and Smart Polymers (Chair: Chuanliang Feng, CHINA)	
1020- 1045	Jürgen Pionteck, Leibniz Institute of Polymer Research Dresden, GERMANY CNT and graphene based conductive composites for sensor applications
1045- 1110	B. C. Yadav, Babasaheb Bhimrao Ambedkar University, Lucknow, INDIA Preparation of nanostructured metal oxides in polymer matrix and their applications for the detection of NO_x Gases
1110- 1130	Kamal P. Sharma, Meijo University, Nagoya, JAPAN Emerging nanomaterials and their CVD synthesis approach: reliable to limited resources
1130- 1150	Vasant V. Chabukswar, Nowrosjee Wadia College, Pune, Maharashtra, INDIA Ecofriendly synthesis of conducting polymer hybrid nanocomposite systems: Applications as gas sensors and recyclable catalysts
1150-1205	Kedar Nath Dhakal, Tribhuvan University, Kathmandu, NEPAL Electrical and thermal properties of polymer nanocomposites of degradable polymer matrix with carbon nanotubes
1205 -1220	Gopal Prasad Khanal, University of Yamanashi, Kofu, Yamanashi, JAPAN Electrical properties of conventionally synthesized (Bi_{0.5} K_{0.5})TiO₃ Piezoelectric ceramics
1220 - 1330	Lunch Break

Symposium 5: Biomolecules and Biomedical Materials (Chair: N. B. Singh, INDIA)	
1330- 1355	Sven Henning, Fraunhofer IMWS, Halle, GERMANY Multimodal hybrid materials for regenerative medicine: Manufacturing and morphology of nanofiber scaffolds
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 Bioinspired chiral supramolecular hydrogels
1445-1500	Priyapratim Patra, Indian Institute of Technology (ISM), Dhanbad, INDIA Fluorescent gel based on crosslinked glycogen and riboflavin for colon specific delivery of ciprofloxacin and metronidazole
1500-1515	Dipankar Das, University of Siegen, Siegen, GERMANY Dextrin for the fabrication of a sustained drug release matrix
1515-1530	Ram Lochan Aryal, Tribhuvan University, Kathmandu, NEPAL Modification of sugarcane bagasse as a natural functional biopolymer for the adsorptive removal of phosphate from aqueous solution
1530-1545	Fehaid Alsubaie, KAUST, SAUDI ARABIA Ultrafast copper-mediated controlled copolymerization of acrylamides: Multifunctional Polymers
1545 – 1615	Tea/Coffee Break

Symposium 6: Advances in Polymer Synthesis (Chair: Amar Prasad Yadav, NEPAL)	
1615-1640	N. B. Singh, Sharda University, Greater Noida, INDIA Geopolymer cement – A new inorganic polymer as a binding material for the future
1640-1705	Yunusov Khaydar, Uzbekistan Academy of Sciences, Tashkent, UZBEKISTAN Synthesis and properties selenium nanoparticles in solution sodium carboxymethylcellulose based on biodegradable anticancer preparation
1705-1720	Bhoj Raj Poudel, Tribhuvan University, Kathmandu, NEPAL Adsorptive removal of phosphate from aqueous solution on modified Arundo Donax stem as natural functional polymers
1720-1735	Puja Das Karmakar, Indian Institute of Technology (ISM), Dhanbad, INDIA In-situ fabrication of nanocomposite using RAFT mediated copolymer of amylopectin/poly(methacrylic acid)/ TiO₂ NPs
1735-1750	Purabi Bhagabati, Indian Institute of Technology (IIT) Guwahati, Assam, INDIA Facile, solvent-free route for synthesis of crystalline poly(ϵ-caprolactone) [PCL] and its biocomposites with algae biomass
1750- 1805	Shanta Pokhrel, Tribhuvan University, Kathmandu, NEPAL Biodegradable copolyester based blends: properties and applications

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

Keynote Lectures (Chair: Peter Tolstoy, RUSSIA)	
0830- 0910	Araceli Flores, Institute for the Structure of Matter, CSIC, SPAIN Nanoindentation in polymer-based graphene composites
0910- 0950	Bernhard Blümich, RWTH Aachen University, Aachen, GERMANY Compact NMR for quality control in polymer science and engineering
0950 - 1020	Tea/Coffee Break

Symposium 7: Polymer Electronics and Bioelectronics (Chair: Araceli Flores, Spain)	
1020- 1045	Lok Kumar Shrestha, National Institute for Materials Science (NIMS), JAPAN Self-assembled fullerene nanomaterials for energy storage and sensing
1045- 1110	Chan Chin Han, Universiti Teknologi MARA, MALAYSIA Dielectric behavior of the solid polymer electrolytes of neat polymers and its immiscible blends
1110- 1135	Szczepan Zapotoczny, Jagiellonian University, Krakow, POLAND Surface-grafted conducting polymer brushes with ladder-like architecture
1135- 1150	Pravin Adhav, Nowrosjee Wadia College, Pune, MS, INDIA Ultrasensitive room temperature operable ammonia sensor based on tartaric acid doped poly-para-phenylenediamine
1150-1205	Yaduram Panthi, Czech Academy of Sciences, IMC, Prague, CZECH REPUBLIC Electronic memory based on conjugated polymers molecularly doped with organic acceptors
1205- 1305	Lunch Break

Special Symposium 1: NMR on Biomolecules and Polymers	
Session Convener: Monique Chan-Huot, Onyx Développement, FRANCE	
1240- 1310	Luminita Duma, Université Technologique de Compiègne, FRANCE Molecular recognition, liquid to solid-state NMR, from imprinted polymer to membrane proteins
1310-1340	Hideo Iwai, Biocenter of Helsinki, FINLAND Protein Splicing and NMR
1340-1410	Laure Guillaudis, Université de Rouen, FRANCE Liquid-state NMR applied to enzyme/substrate/inhibitor
1410-1440	Peter Tolstoy, St Petersburg University, RUSSIA NMR used in studying H-bonds
1440-1510	Ricardo Manriquez, University of Guadalajara, MEXICO NMR studies in cellulose: structural characterization, chemical functionalization and possible applications
1510-1540	Monique Chan-Huot, Onyx Développement, FRANCE NMR in liquid crystal – alanine racemase
1540-1545	Summary
1545 - 1615	Tea/Coffee Break

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

Symposium 8: Polymer Physics, Theory, Simulations (Chair:Ricardo Manriquez, MEXICO)	
1020- 1045	Sunit Hendrana, Indonesian Institute of Sciences (LIPI), INDONESIA Effect of unentangled single polymer molecules on polymer modification
1045- 1110	Shigeru Okamoto, Nagoya Institute of Technology, Nagoya, JAPAN Discontinuity in the change of a domain spacing on a temperature drop in three-dimensional morphologies
1110- 1130	Mehrdad Negahban, University of Nebraska-Lincoln, Lincoln, Nebraska, USA Kinetics-based control of grading in IPN systems: analysis, modeling and printing
1130- 1150	Jianlin Yi, Peking University, Beijing, CHINA Asymmetric and extraordinary transmission in loss-gain metamaterials
1150-1205	Rongyu Xia, Peking University, Beijing, CHINA Steering elastic shear horizontal waves by tunable locally resonant metasurface
1205 -1220	Rishi Ram Ghimire, Tribhuvan University, Kathmandu, NEPAL Fabrication of high performance flexible thin film transistor (Flex-TFT) using electric double layer gate dielectric and nanostructured Oxide as a channel
1150-1205	Rajendra Adhikari, Kathmandu University, Kavre, NEPAL Superconductivity in poly(p-phenylene) at high pressure from first principles calculation
1205-1220	Ashish Chourasia, H. P. T. Arts and R. Y.K. Science College, Nashik, INDIA Highly sensitive reproducible ammonia sensor based on poly(3,4-ethylenedioxythiophene)
1220-1240	V.N. Suryawanshi, H.P.T. Arts & R. Y.K. Science College, Nasik, INDIA Synthesis of lead oxide nanoparticles: effects of solvents and surfactant on structural and optical properties
1240 – 1330	Lunch Break

Special Symposium 2: Nanotechnology for Nepal	
1330-1545	Roundtable Discussion
1545 - 1800	Poster Session
POLY-CHAR Scientific Committee Hall C	
1645-1845	Roundtable Discussion

DAY IV. WEDNESDAY, May 22, 2019

Keynote Lectures (Chair: Michael Hess, USA)	
0800- 0840	Peter Mallon, Stellenbosch University, SOUTH AFRICA Physically crosslinked hydrogel films and nanofibres from poly(dimethyl-siloxane) grafted amphiphilic copolymers
0840- 0920	Holger Schönherr, University of Siegen, Siegen, GERMANY Polymer-based biointerfaces and cell microenvironments: exploiting the vast toolbox of polymers for future regenerative medicine
0920-1000	Ralph Cooney, The University of Auckland, NEW ZEALAND Greener surface-anchored anti-bacterials
1000-1020	Tea/Coffee Break

Symposium 9: Nanomaterials and Smart Polymers (Chair: Meena Rajbhandari, NEPAL)	
1020- 1045	Masaki Tanemura, Nagoya Institute of Technology, Nagoya, JAPAN Physical functionalization of transparent and flexible polymers
1045- 1105	D. P. Subedi, Kathmandu University, Kavre, NEPAL Surface treatment of polypropylene (PP) by dielectric barrier discharge (DBD) generated in near atmospheric pressure
1105- 1125	Md. Abu Bin Hasan Susan, University of Dhaka, Dhaka, BANGLADESH Polymer nanocomposites with tunable size and distribution from water-in-oil microemulsions
1125- 1150	Pushpendra Kumar, Manipal University, Rajasthan, INDIA Porous silicon synthesis to produce nanostructures and its use as template to confine malachite green
1150-1205	Amit Kumar, Indian Institute of Technology Guwahati, Assam, INDIA Studies on blends and composites of polylactic acid
1205 -1220	Bhim P. Kafle, Kathmandu University, Dhulikel, Kavre, NEPAL Reduced graphene oxide (rGO) films for hole transport layer for perovskite solar cells
1220-1235	Komal P. Malla, Pokhara University, Kaski, Pokhara, NEPAL An approach for electrospinning and characterization of natural hydroxyapatite nanoparticle loaded PCL/PLLA/GEL/VitD3 blend fiber scaffolds for bone tissue engineering
1235- 1250	Subash Sharma, Nagoya Institute of Technology, JAPAN Controlling shape and layer of graphene crystals in CVD process using Waste plastic as carbon source
1250 – 1340	Lunch Break

Symposium 10: Polymer Degradation, Recycling and Environment Protection (Chair: Md. Abu Bin Hasan Susan, BANGLADESH)	
1340- 1405	Vimal Katiyar, Institute of Technology Guwahati, Assam, INDIA Functionalization of cellulose nanocrystals for development of polymeric bionanocomposites and applications in sustainable chemical processes
1405-1430	Sagar Pal, Indian Institute of Technology (ISM), Dhanbad, INDIA Modified polysaccharides as drugs carrier
1430-1455	Rabindra Prasad Dhakal, Nepal Academy of Science and Technology, NEPAL Sustainable management of waste plastics of Nepal using a novel technology: scope, economy and environmental impact
1455-1510	Jyoti Giri, Tribhuvan University, Kathmandu, NEPAL Isolation of micro- and nanocellulose from wheat straw to fabricate green composites of copolyester and study degradation behavior
1510-1525	M. Ashaq Malik, Govt. PG. College, Rajouri, J&K, INDIA Biopolymers and United Nations Sustainable Development Goals (SDGs)
1525-1540	Blessy Joseph, Mahatma Gandhi University, Kottayam, Kerala, INDIA Degradation of 3D printed scaffolds in Phosphate Buffered Saline
1540-1555	Ojashwi Baidya, Tyre Treasures, Kathmandu, NEPAL Tyre Treasures - Upcycling for a cleaner, greener Nepal
1555 - 1630	Tea/Coffee Break

1630 - 1800	Closing Ceremony, Awards Distribution Presentation about POLY-CHAR 2020 and POLY-CHAR 2021
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DAY V. THURSDAY, May 23, 2019

Excursion to traditional materials enriched heritage sites (Dhulikhel and Bhaktapur), and informal discussion, and networking

Tentative Excursion Plan

- **0700 AM** **Departure from respective hotels**
- **0800 AM** **Arrival to Dhulikhel**
- **0850 AM** **Picnic at Chuchche Dhunga followed by Hiking**
- **1200 Noon** **Arrival at Bhaktapur and sightseeing, lunch at Bhaktapur**
- **1600 PM** **Return to respective hotel**