

## काठमाडौं हम्बोल्ड सम्मेलन २०२२ | KATHMANDU HUMBOLDTKOLLEG 2022 (KHK – 2022)

### Interdisciplinary Collaboration for Strengthening Science and Culture

October 16 – 19, 2022, Hotel Himalaya, Sahid Shukra Marg, Lalitpur, Bagmati Province, Nepal

### Programme

#### Day I: Sunday, Oct. 16, 2022

14:00 –	Arrival, Press Conference
17:00 – 19:00	Get together, Reception with Open Discussion on Building Collaborative Networks

#### Day II: Monday, Oct. 17, 2022 (Himalaya Hall)

08:00 – 09:00	Registration
09:00 – 09:35 Opening Ceremony	Chairperson - Prof. Ramawatar Yadav (Former Vice-Chancellor of Purbanchal University) Welcome speech and introduction to the Conference Theme by Prof. Rameshwar Adhikari <b>Honorary Guests</b> ( <i>listed in alphabetical order of surnames</i> ) Prof. Dr. Dharma Kanta BANSKOTA (Vice Chancellor, Tribhuvan university, Kathmandu) Prof. Dr. Rajendra Dhoj JOSHI (President, Madan Bhandari University of Science and Technology, Chitlang, Nepal) H. E. Dr. Thomas PRINZ (Ambassador of Federal Republic of Germany) Dr. Judith SCHILDT (Sponsorship & Network Department, AvH Foundation, Bonn, Germany) Dr. Sunil Babu SHRESTHA (Vice Chancellor, Nepal Academy of Science and Technology) Prof. Dr. Bhola THAPA (Vice Chancellor, Kathmandu University, Dhulikhel, Nepal) Representative from Ministry of Education, Science and Technology, Nepal Master of Ceremony: Dr. Babita Paudel-Bhattarai
09:35 – 10:00	Dr. Judith Schildt, Sponsorship and Network Department, AvH Foundation, GERMANY <b>Introduction to AvH Foundation and Research Opportunities</b>
10:00 – 10:10	Vote of thanks and closing of the opening ceremony by Chairperson
10:10 – 10:40	Tea/Coffee break

10:40 – 12:10 Round Table (RT)	<i>Roundtable Panel – Audience Discussion</i> <b>Interdisciplinary Collaboration for Sustainable Development: Challenges and Opportunities</b> <u>Panel Members</u> Hon'ble Dr. Ananda Mohan BHATTARAI (Judge at Supreme Court, Nepal) Dr. Suresh Chandra CHALISE (former Ambassador to the United Kingdom) Prof. Dr. Rajendra Dhoj JOSHI (President, Madan Bhandari University of Science and Technology, Chitlang, Nepal) H. E. Dr. Thomas PRINZ (Ambassador of Federal Republic of Germany) Dr. Judith SCHILDT (Head, Sponsorship and Network Department, AvH Foundation) Representative of GIZ and Ministry of Education, Science and Technology, Nepal (TBC) <b>Moderation:</b> Prof. Dr. Rameshwar Adhikari
12:10 – 13:30	Lunch Break and Photo Session

#### Plenary and Keynote Session – I. Chairpersons: Prof. Dr. N. B. Singh / Prof. Dr. Tarasankar Pal

13:30 – 14:10 Plenary Lecture (PL-Online)	Prof. Dr. Sabu Thomas, Vice Chancellor, Mahatma Gandhi University, Kerala, INDIA <b>Circular Economy: New Opportunities in Sustainable Nanomaterials and Polymer Bio-Nanocomposites</b>
14:10 – 14:40 Keynote Lecture (KL1)	Prof. Dr. Harald GROß, University of Tübingen, GERMANY <b>The Value of Genome Mining and Genetic Engineering in Microbial Natural Product Chemistry and Applied Biotechnology</b>
14:40 – 15:10 Keynote Lecture (KL2)	Prof. Dr. Holger SCHÖNHERR, University of Siegen, GERMANY <b>To Be Prepared and Act Proactively: Lessons Learned For the Post Covid Era or How Soft Matter Materials Chemistry Can Contribute to Reduce the Threat of Antibiotic Resistant Bacteria</b>
15:10 – 16:30 Poster Session	Poster Session with Tea/Coffee Poster Presentation by Young Scientists and Senior Researchers

**Keynote Session – II. Chairpersons: Prof. Jeroen van den Brink**

16:30 – 17:00 Keynote Lecture (KL3)	Prof. Dr. Christian KLINKE, University of Rostock, GERMANY <b>Colloidal Chemistry of Nanomaterials: A Toolbox for Advanced Electronics</b>
17:00 – 17:30 Keynote Lecture (KL4)	PD Dr. Manuel RICHTER, Leibniz-IFW Dresden, GERMANY <b>Quantitative Predictions by Electronic Structure Theory</b>
19:15 -	Cultural Performance and Conference Dinner

**Online Sessions on Oct. 17, 2022 (Virtual Mode Invited Presentations)****VIRTUAL CROSS-DISCIPLINARY SESSION I****Chairpersons: Prof. Dr. Tanka Nath Dhamala / Dr. Madhav P. Ghimire**

15:10 – 15:30 <b>IL-1</b>	Prof. Dr. Rafael A ESPIRITU, De La Salle University, Manila, THE PHILIPPINES <b>Peeking into the Many Faces of Cell Death</b>
15:30 – 15:50 <b>IL-2</b>	Prof. Dr. Enke LIU, Institute of Physics, Chinese Academy of Sciences, CHINA <b>Giant Anomalous Hall Effect in a Ferromagnetic Kagome-lattice Semimetal</b>
15:50-16:10 <b>IL-3</b>	Dr. Yu-Hong DAI, AMSS, Chinese Academy of Sciences, Beijing, CHINA <b>New Trends in Nonlinear Optimization</b>
16:10 – 16:30 <b>IL-4</b>	Prof. Dr. Leena SUNTORNSUK, Mahidol University, Bangkok, THAILAND <b>Distance Based Paper Device for Rapid and In-field Analysis of Disinfectants Against COVID-19</b>

**VIRTUAL CROSS-DISCIPLINARY SESSION II**

17:30 – 18:50 <b>IL-5</b>	Prof. Dr. Stefan PICKL, Universität der Bundeswehr, München, GERMANY <b>Optimization Safety &amp; Security for Complex Situations as Challenges for Operations Research</b>
17:50 – 18:10 <b>IL-6</b>	Dr. Sohaib ASLAM, Forman Christian College, Lahore, PAKISTAN <b>Biodegradation of Glyphosate and its Major Transformation Compounds in an Agricultural Soil</b>
18:10 – 18:30 <b>IL-7</b>	Dr. Ganesh Raj JOSHI, Former Secretary of Nepal Government <b>Food Security Challenges for Nepal</b>
18:30 – 18:50 <b>IL-8</b>	Dr. Sushant GHIMIRE, University of Rostock, GERMANY <b>Synthesis, Optoelectronic Properties, and Application of Metal Halide Perovskite Nanostructures</b>
18:50 – 19:10 <b>IL-9</b>	Mr. Dipesh CHAPAGAIN, University of Bonn, GERMANY <b>Is Climate Change to Blame for Rising Disasters Mortality in Nepal?</b>

**Day III: Tuesday, Oct. 18, 2022 (Rato Baithak Hall, Parallel Session)****Symposium I: Life Sciences***Chairpersons: Prof. Dr. Harald Groß / Prof. Dr. Ratiram Chaudhary*

09:00 – 09:20 <b>IL-10</b>	Prof. Dr. Samina MEHNAZ, Forman Christian College, Lahore, PAKISTAN <b>Microbes and Environment</b>
09:20 – 09:40 <b>IL-11</b>	Prof. Dr. Poonam TANDON, University of Lucknow, Lucknow, INDIA <b>Structure - Activity Relationship on Pharmaceutical Compounds</b>
09:40 – 10:00 <b>IL-12</b>	Prof. Dr. Ajit GHOSH, Shahjalal University of Science and Technology, BANGLADESH <b>Subunit Localization and Mass Spectrometry Analysis of Arabidopsis Snf1 Related Protein Kinase 1 (SnRK1)</b>
10:00 – 10:20 <b>IL-13</b>	Dr. Tahmina ISLAM, University of Dhaka, Dhaka, BANGLADESH <b>CRISPR-Cas9 Genome Editing for Lowering Erucic Acid Content in Brassica rapa (L.)</b>
<b>10:40 – 11:10</b>	<b>Tea/Coffee break</b>
11.10 – 11:30 <b>IL-14</b>	Prof. Dr. Hari Datta BHATTARAI, Tribhuvan University, Kathmandu, NEPAL <b>Biodiversity and Bioprospecting Research in Nepal: Present Status and Future Potential</b>
11:30-11:50 <b>IL-15</b>	Prof. Dr. Purusotam BASNET, The Arctic University of Norway, Tromsø, NORWAY <b>Nanomedicine with AI for Assisted Reproductive Technology</b>
12:30 – 13:30	<b>Lunch Break</b>

**Symposium II: Social and Agricultural Sciences***Chairpersons: Prof. Dr. Zuriati Zakaria / Dr. Suresh Chandra Chalise*

13:30 – 13:50 <b>IL-16</b>	Prof. Dr. Ananta Kumar Giri, Madras Institute of Development Studies, Chennai, INDIA <b>Interdisciplinary Collaboration for Strengthening Science and Culture: Towards a New Pragmatics and Hermeneutics of Transdisciplinarity and the Calling of Planetary Realizations</b>
13:50 – 14:10 <b>IL-17</b>	Prof. Dr. Supawan TANTAYANON, Chulalongkorn University, THAILAND <b>Interdisciplinary Engagement in Three Science Curricula at Chulalongkorn University: Designed Subjects and Teaching Approaches</b>
14:10 – 14:30 <b>IL-18</b>	Prof. Dr. Rameshwar ADHIKARI, Tribhuvan University, Kathmandu, NEPAL <b>Young Scientists International Laboratory: A Tool for Research Ecosystem Building Through Collaboration?</b>
14:30 – 14:50 <b>IL-19</b>	Dr. Babita PAUDEL-BHATTARAI, Center for Natural and Applied Sciences, NEPAL <b>Women in Science and Technology in Nepal: Present Status, Challenges and Opportunities</b>
14:50 – 15:20	Tea/Coffee Break

15:20 – 18:20	Visits to cultural and historical sites of Kathmandu
19:00 – 21:00	Dinner and Cultural Event for Foreign Participants

**Day III: Tuesday, Oct. 18, 2022 (Himalaya Hall, Parallel Session)****Symposium III: Physical/Chemical Sciences - I***Chairpersons: Prof. Dr. E. Bhoje Gowd / Dr. Ralf Lach*

09:00 – 09:20 <b>IL-20</b>	Prof. Dr. Susanta BANERJEE, Indian Institute of Technology Kharagpur, INDIA <b>Preparation of Sulfonated Polytriazoles With Phosphorus Containing Moieties via Click Polymerization: Proton Exchange Membrane Properties</b>
09:20 – 09:40 <b>IL-21</b>	Prof. Dr. Kinsuk NASKAR, Indian Institute of Technology Kharagpur, INDIA <b>Recent Advances on Thermoplastic Elastomers (TPEs): Development, Properties and Applications</b>
09:40 – 10:00 <b>IL-22</b>	Prof. Dr. N. B. SINGH, Sharda University, Greater Noida, INDIA <b>Green Nanomaterials and Their Applications</b>
10:00 – 10:20 <b>IL-23</b>	Dr. Anindita DAS, Indian Association for the Cultivation of Science, Kolkata, INDIA <b>Synthesis and Self-assembly of Functional Polyesters</b>
10:20 – 10:40 <b>IL-24</b>	Prof. Dr. Suhrit GHOSH, Indian Association for the Cultivation of Science, Kolkata, INDIA <b>Chain-folding Regulated Antibacterial Activity of Amphiphilic Polyurethanes</b>
10:40 – 11:10	Tea/Coffee Break

*Chairpersons: Prof. Dr. Vudhichai Parasuk / PD Manuel Richter*

11.10 – 11:30 <b>IL-25</b>	Prof. Dr. Veena CHOUDHARY, Indian Institute of Technology Delhi, INDIA <b>Polymer Nanocomposites for EMI Shielding</b>
11:30-11:50 <b>IL-26</b>	Prof. Bhoje GOWD, CSIR-National Institute for Interdisciplinary Science and Technology (CSIR-NIIST), Thiruvananthapuram, INDIA <b>Directed Assembly of Hierarchical Supramolecular Block Copolymer</b>
11:50 – 12:10 <b>IL-27</b>	Dr. Ralf LACH, PSM Merseburg, GERMANY <b>Indentation Techniques to Analyse the Material and Surface Properties of Polymers and Composites</b>
12:10 – 12:30 <b>IL-28</b>	Dr. Dan SATHIARAJ, Indian Institute of Technology, Indore, INDIA <b>Additive Manufacturing of Advanced Materials</b>
12:30 – 13:30	<b>Lunch Break</b>

**Symposium IV: Physical/Chemical Sciences- II***Chairpersons: Prof. Dr. Veena Choudhary / Prof. Dr. Purusotam Basnet*

13:30 – 13:50 <b>IL-29</b>	Prof. Dr. Tarasankar PAL, IIT Kharagpur, INDIA <b>Surface Enhanced Raman Scattering (SERS) using Core-shell Nanoparticles</b>
13:50 – 14:10 <b>IL-30</b>	Prof. Dr. Ratiram G. CHAUDHARY, SKP College, Kamptee, Nagpur, INDIA <b>Bioinspired Nanoscale Synthesis: An Economical and Sustainable Approach</b>
14:10 – 14:30 <b>IL-31</b>	Prof. Dr. Ajay K. SINGH, Govt. V. Y. T. PG. Autonomous College, Durg, CG, INDIA <b>Role of Nanotechnology for Advancement in Wastewater Treatment</b>
14:30 – 14:50 <b>IL-32</b>	Prof. Dr. Jean-Marc SAITER, Nutriset Développement, Malaunay, and Université de Rouen Normandie, FRANCE <b>On the Need of Developing International Collaboration: An Example of International Forum POLY-CHAR</b>
14:50 – 15:20	Tea/Coffee Break

15:20 – 18:20	Visits to cultural and historical sites of Kathmandu
19:00 – 21:00	Dinner and Cultural Event for Foreign Participants

**Day IV: Wednesday, Oct. 19, 2022 (Rato Baithak Hall, Parallel Session)****Symposium V: Physical/Chemical Sciences - III***Chairpersons: Prof. Dr. Poonam Tandon*

09:00 – 09:20 <b>IL-40</b>	Prof. Dr. Jeroen van den BRINK, IFW-Dresden, GERMANY <b>Anyone Seen an Anyon?</b>
09:20 – 09:40 <b>IL-41</b>	Dr. Madhav P. GHIMIRE, Tribhuvan University, Kathmandu, NEPAL <b>Topological Properties of Kagome Metals and Their Applications</b>
09:40 – 10:00 <b>IL-42</b>	Dr. Jorge FACIO, Centro Atómico Bariloche Río Negro, ARGENTINA <b>Spin-split Collinear Antiferromagnets: A Large-scale <i>ab initio</i> Study</b>
10:00 – 10:20 <b>IL-43</b>	Dr. María Lourdes AMIGÓ, Centro Atómico Bariloche Río Negro, ARGENTINA <b>Playing with the Dimensionality in Iron-based Superconductors: Quasi-one Dimensional iron Chalcogenide BaFe<sub>2</sub>S<sub>3</sub></b>
10:20 – 10:40 <b>IL-44</b>	Prof. Rohana CHANDRAJITH, University of Peradeniya, SRI LANKA <b>Application of Solute Geochemistry and Stable Isotopes for Seawater Intrusion in Coastal Aquifer Systems</b>

11:50 – 13:00	Closing Ceremony / Declaration of KHK 2022
13:00 – 14:00	Lunch

**Day IV: Wednesday, Oct. 19, 2022 (Himalaya Hall, Parallel Session)****Symposium VI: Earth and Environmental Science***Chairpersons: Prof. Dr. Mu. Ramkumar / Prof. Dr. Tribikram Bhattarai*

09:00 – 09:20 <b>IL-33</b>	Prof. Dr. N. Janardhana RAJU, Jawaharlal Nehru University, New Delhi, INDIA <b>Climate Change Impact on Water Resources and Sustainable Rainwater Harvesting Systems</b>
09:20 – 09:40 <b>IL-34</b>	Prof. Dr. Anjali PAL, Indian Institute of Technology Kharagpur, West Bengal, INDIA <b>Application of Chitosan Hydrogel Bead for Surfactant and Heavy Metal Removal from Water and its Further Use as Catalyst: A Green Chemistry Approach</b>
09:40 – 10:00 <b>IL-35</b>	Dr. Seema MISHRA, Lucknow University, Lucknow, INDIA <b>Understanding Arsenic Metabolism in Nonhyperaccumulator Plants through Complimentary Application of Hyphanated Analytical and Imaging Techniques</b>
10:00 – 10:20 <b>IL-36</b>	Prof. Dr. Prem Bahadur THAPA, Tribhuvan University, Kathmandu, NEPAL <b>An Overview of Landslide Susceptibility Assessment in Nepal Himalaya</b>
10:20 – 10:50	Tea/Coffee Break

**Symposium VII: Mathematical Science and Disaster Mitigation***Chairpersons: Prof. Dr. Ajay Kumar Singh*

10:50 – 11:10 <b>IL-37</b>	Prof. Dr. Tanka Nath DHAMALA, Tribhuvan University, Kathmandu, NEPAL <b>OR Models for Congestion Reduction and Emergency Relief: A Collaborative Outcome</b>
11:10-11:30 <b>IL-38</b>	Prof. Dr. Urmila PYAKUREL, Tribhuvan University, Kathmandu, NEPAL <b>Role of Intermediate Locations in Evacuation Planning</b>
11:30 – 11:50 <b>IL-39</b>	Mr. Rupesh SHRESTHA, Technische Universität Kaiserslautern, GERMANY <b>Integrated Design and Planning Strategy for Flood Resilient Housing in Nepal</b>
11:50 – 13:00	Closing Ceremony / Declaration of KHK 2022
13:00 – 14:00	Lunch

14:00 – 18:30	Excursion for Foreign Delegates
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**Note: Blue coloured program Text for Online Presentations**