TUM x IIT Kharagpur Research Forum 2024
July 1 – 3, 2024

Information & Energy Technologies for Sustainable Urban Mobility
hosted by Prof. Constantinos Antoniou, Chair of Transportation Systems Engineering

Day 1 – Monday, July 1

Mobility, Energy and Information Nexus

Hybrid event:
Venue: Vorhoelzer Forum (Map), Level 5, Arcisstr. 21, TUM Campus Munich
Online: Zoom link; Meeting ID: 662 9678 9708; Passcode: 685644

<table>
<thead>
<tr>
<th>CEST</th>
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<th>Presentations and Speakers</th>
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<tbody>
<tr>
<td>8:45</td>
<td></td>
<td>Arrival of participants</td>
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<tr>
<td>9:00 – 9:10</td>
<td>12:30 – 14:40</td>
<td>Introductions</td>
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Speakers:
• Prof. Constantinos Antoniou, TUM
• Prof. Siddhartha Mukhopadhyay, IIT KGP (PPT) |
| 9:50 – 10:30 | 13:20 – 14:00 | The Information Highways for New Urban Mobility
Speakers:
• Prof. Bhargab Maitra, IIT KGP
• Prof. Norman Weik, TUM                         |
| 10:30 – 11:00 | 14:00 – 14:30 | Discussion to explore needs, gaps, opportunities, challenges and targets                     |
Day 2 – Tuesday, July 2

**Information Mobility Nexus: Role of data and associated policy, technology, infrastructure etc. for improved safety, quality, cost and speed of transportation**

**Hybrid event:**
**Venue:** Vorhoelzer Forum ([Map](#)), Level 5, Arcisstr. 21, TUM Campus Munich
**Online:** [Zoom link](#); Meeting ID: 683 5151 5073; Passcode: 638460

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<tr>
<th>CEST</th>
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<tr>
<td>8:15</td>
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<td>Researchers to arrive at the venue</td>
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| 8:30 – 8:35 | 12:00 – 12:05 | **Welcome Remarks by TUM Vice President (Global Communication & Public Engagement)**  
Prof. Jeanne Rubner |
| 8:35 – 8:40 | 12:05 – 12:10 | **Welcome Remarks by IIT KGP Deputy Director**  
Prof. Rintu Banerjee |
| 8:40 – 8:45 | 12:10 – 12:15 | **Group Photo**  
(Prof. Jeanne Rubner, all PIs and then all PIs and IGP core group photo in front of screen with Prof. Banerjee) |
| 8:50 – 9:10 | 12:20 – 12:40 | **Round of Introductions & Debrief by PIs**  
(5 mins each) * 4 = 20 mins  
**Speakers:**  
- Prof. Constantinos Antoniou, TUM  
- Prof. Siddhartha Mukhopadhyay, IIT KGP  
- Prof. NC Narayanan, IIT B  
- Prof. Miranda Schreurs, TUM |
| 9:10 – 9:20 | 12:40 – 12:50 | **Tea / Coffee Break (10 mins)** |
| 9:20 – 10:10 | 12:50 – 13:40 | **Session 1: Emerging data and information ecosystem enabling mobility: India Context**  
(20 mins each + 10 mins common discussion)  
**Speakers:**  
- Prof. D. Chakravarty, IIT KGP  
- Prof. A. Goswami, IIT KGP |
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<th>Time</th>
<th>Activity</th>
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<tr>
<td>10:10 – 11:00</td>
<td>Session 2: Towards data-based transportation: experiences from Europe</td>
<td>(20 mins each + 10 mins common discussion)</td>
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<td><strong>Speakers:</strong></td>
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<td></td>
<td>• Prof. Constantinos Antoniou, TUM</td>
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<td>• Prof. Norman Weik, TUM</td>
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<td>11:00 – 11:10</td>
<td>Tea / Coffee Break (10 mins)</td>
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<td>11:10 – 12:00</td>
<td>Discussion with industry experts from India &amp; Germany</td>
<td>(10 mins each speaker + time for discussion)</td>
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<td><strong>Speakers:</strong></td>
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<td>• Mr. Yannic Wolf, Porsche</td>
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<td>• Mr. Hari Mohan, Swaayatt Robotics</td>
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<td>• Mr. Prasanta Sarkar, Tata Motors</td>
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<td>12:00 – 13:00</td>
<td>Lunch (60 mins)</td>
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<td>13:05 - 14:35</td>
<td>Research &amp; Development Discussion</td>
<td>(10-15 mins for each presenter)</td>
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<td><strong>Speakers:</strong></td>
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<td>• Mr. Suman Ganguly, IIT KGP</td>
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<td>• Mr. Mario Ilíc, TUM</td>
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<td>• Mr. Alexander Kutsch, TUM</td>
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<td>• Dr. Dipanjan Nag, NTNU</td>
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<td>• Dr. Ramandeep Singh, TUM</td>
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<td>14:35 – 14:45</td>
<td>Tea / Coffee Break (10 mins)</td>
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<td>14:45 – 15:00</td>
<td>Conclusion and Closing Remarks</td>
<td><strong>Speakers:</strong></td>
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<td>• Prof. Constantinos Antoniou, TUM</td>
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**IGP Dinner (by invitation only)**

**Venue:** Augustinerkeller ([Map](#)), Arnulfstr. 52, 80335 Munich

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<tr>
<td>19:00</td>
<td>Bavarian Dinner with IGP Stakeholders and invited guests</td>
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Day 3 – Wednesday, July 3

Energy Mobility Nexus: Role of energy input, management and storage technologies and associated policy, infrastructure etc. for improved safety, quality, cost and speed of transportation

Hybrid event:
Venue: Mechanical Engineering Building, Seminar Room MW 3502 (Map), Boltzmannstr. 15 (3F), 85748 Garching-Forschungszentrum
Online: Zoom link; Meeting ID: 675 8442 8182; Passcode: 953219

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<tr>
<td>8:00</td>
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<td>IIT KGP Researchers, Layla and Mohaa – assemble at Hauptbahnhof to get to Garching-Forschungszentrum</td>
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| 9:15 – 10:05 | 12:45 – 13:35 | **Session 1: Energy Sustainability for Mobility**  
(20 mins each + 10 mins common discussion)  
Speakers:  
• Prof. Siddhartha Mukhopadhyay, IIT KGP  
• Prof. Vikranth Racherla, IIT KGP |
| 10:20 – 11:10 | 13:50 – 14:40 | **Session 2**  
(20 mins each + 10 mins common discussion)  
Speakers:  
• Dr. Tanja Niels, TUM  
• Dr. Mohammad Sadrani, TUM |
| 11:10 – 12:10 | 14:40 – 15:40 | **Discussion with experts, speakers, audience.**  
Speakers:  
• Mr. Kapil Baidya, Tata Motors  
• Dr. Manaswini Rath, KPIT  
• Prof. Zakir Rather, IIT Bombay |
Speakers:  
• Mr. Jyotirmaya Sahoo, IIT KGP  
• Mr. Dhrupad Biswas, Caterpillar India  
• Dr. Mohamed Abouelela, TUM  
• Dr. Christelle Al Haddad, TUM |
13:20 – 13:25 16:50 – 16:55  **Conclusion and Closing Remarks**  
**Speakers:**  
- Prof. Siddhartha Mukhopadhyay, IIT KGP

13:25 – 14:30 16:55 – 18:00  **Lunch Break**  
Walk to Mensa for Lunch; soup/salad + main dish + desert + beverage

14:45 – 15:45 N/A  **Tour through Prof. Lienkamp Lab** (after the workshop)

**List of Industry Speakers**

1. Mr. Kapil Baidya, Assistant General Manager, Tata Motors  
2. Mr. Prasanta Sarkar, Tata Motors Limited  
3. Mr. Dhrupad Biswas, Senior Associate Engineer, Caterpillar India  
4. Mr. Hari Mohan, Swaayatt Robotics  
5. Mr. Yannic Wolf, Entwicklungingenieur Data Analytics, Porsche  
6. Dr. Manaswini Rath, KPIT

**List of TUM Speakers**

1. Prof. Jeanne Rubner, Vice President (Global Communication & Public Engagement)  
2. Prof. Constantinos Antoniou, Chair of Transportation Systems Engineering, TUM School of Engineering and Design (TUM ED)  
3. Prof. Miranda Schreurs, Chair of Environment and Climate Policy, Hochschule für Politik, TUM School of Social Sciences and Technology  
4. Prof. Norman Weik, Planning and Operation of Rail Transport System, TUM ED  
5. Mr. Mario Illic, Chair of Traffic Engineering and Control, TUM ED  
6. Mr. Alexander Kutsch, Chair of Traffic Engineering and Control, TUM ED  
7. Dr. Ramandeep Singh, Chair of Transportation Systems Engineering, TUM ED  
8. Dr. Mohamed Abouelela, Chair of Transportation Systems Engineering, TUM ED  
9. Dr. Christelle Al Haddad, Chair of Transportation Systems Engineering, TUM ED  
10. Dr. Tanja Niels, Chair of Traffic Engineering and Control, TUM ED  
11. Dr. Mohammad Sadrani, Chair of Transportation Systems Engineering, TUM ED

**List of IIT Kharagpur Speakers**

18. Prof. Rintu Banerjee, Deputy Director IIT Kharagpur  
19. Prof. Siddhartha Mukhopadhyay, Department of Electrical Engineering, Chairperson, Subir Chowdhury School of Quality and Reliability, Chairperson, Centre of Excellence in Advanced Transportation, IIT Kharagpur  
20. Prof. Debashish Chakravarty, Professor, Department of Mining Engineering; Associate Dean, Alumni Affairs and International Relations  
21. Dr. Arkopal Goswami, Associate Professor, Ranbir and Chitra Gupta School of Infrastructure Design and Management  
22. Prof. Vikranth Racherla, Professor, Department of Mechanical Engineering  
23. Mr. Suman Ganguly, Research Scholar  
24. Mr. Jyotirmaya Sahoo, Research Scholar

**List of IIT Bombay Speakers**

25. Prof. N.C. Narayanan, Ashank Desai Centre for Policy Studies
26. Prof. Zakir Hussain Rather, Department of Energy Science and Engineering

**List of other University Speakers**

27. Dr. Dipanjan Nag, Postdoctoral Fellow, NTNU, Norway