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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| <div>1 WINTER SEMESTER</div> <div>BASICS, URBANISM, BUILDINGS, INFORMATION</div> <div>30 CP</div> <div>€ 4,000</div>                                                                           |                                                                                                                               |                                                                                                                                                                         |                                                                                                                                                    | <div>2 SUMMER SEMESTER</div> <div>INFRASTRUCTURE, MANAGEMENT, FINANCE</div> <div>30 CP</div> <div>€ 4,000</div>                                                                                    |                                                                                                                                                                                  |                                                                                                                                      |                                                                                                                                 | <div>3 FINAL SEMESTER</div> <div>MASTER THESIS</div> <div>30 CP</div> <div>€ 2,000</div>                                      |
| <div>M1</div> <div>BASICS OF SMART SOLUTIONS</div> <div>ML: Prof. Dr. Belle</div> <div>6 CP</div>                                                                                              | <div>M2</div> <div>SMART URBANISM</div> <div>ML: Prof. Dr. Belle</div> <div>6 CP /</div>                                      | <div>M3</div> <div>SMART BUILDINGS</div> <div>ML: Prof. Binder</div> <div>6 CP</div>                                                                                    | <div>M4</div> <div>SMART INFORMATION MODELLING &amp; AI</div> <div>ML: Prof. Dr.-Ing. Blanco-Vogt</div> <div>6 CP</div>                            | <div>M5</div> <div>SMART ENERGY &amp; MOBILITY</div> <div>ML: Prof. Dr.-Ing. Schmidt</div> <div>6 CP</div>                                                                                         | <div>M6</div> <div>SMART RESOURCES &amp; RESILIENCE</div> <div>ML: Prof. Dr.-Ing. Schmidt</div> <div>6 CP</div>                                                                  | <div>M7</div> <div>SMART SUSTAINABLE FINANCE</div> <div>ML: Prof. Dr. Popovic</div> <div>6 CP</div>                                  | <div>M8</div> <div>SM. GOVERNANCE, CITIZENS &amp; MGMT</div> <div>ML: Prof. Dr. Belle</div> <div>6 CP</div>                     | <div>M10</div> <div>MASTER THESIS</div> <div>ML: Prof. Dr. Belle</div> <div>30 CP</div>                                       |
| <div>1.1 CDD</div> <div>Global Climatic &amp; Demogr. Development Challenges</div> <div>Prof. Dr. Iris Belle</div> <div>1.5 CP</div>                                                           | <div>2.1 SCC</div> <div>Smart City &amp; Smart Region</div> <div>Johannes Schwegler, MBA</div> <div>1.5 CP</div>              | <div>3.1 SAC</div> <div>Smart Architecture Concept</div> <div>Prof. Roland Dieterle</div> <div>1.5 CP</div>                                                             | <div>4.1 SDC</div> <div>Smart Data Components</div> <div>Hamidreza Ostadabbas, M.Sc.</div> <div>1.5 CP</div>                                       | <div>5.1 SEG</div> <div>Smart Energy Generation</div> <div>IPM</div> <div>Prof. Dr.-Ing. Benjamin Reuter</div> <div>1.5 CP</div>                                                                   | <div>6.1 SWW</div> <div>Smart Water &amp; Waste Management</div> <div>IPM</div> <div>Jürnjakob Duggs, M. Sc.</div> <div>Dipl.-Ing. M. Eng. Markus Bleier</div> <div>1.5 CP</div> | <div>7.1 FMI</div> <div>Financial Markets &amp; Institutions</div> <div>Andy Yarahmadi, MBA</div> <div>1.5 CP</div>                  | <div>8.1 PPG</div> <div>Principles of Public Policy &amp; Governance</div> <div>Felix Bossner, M.A.</div> <div>1.5 CP</div>     | <div>10.1 ACW</div> <div>Academic Writing &amp; Smart City Literature</div> <div>Prof. Dr. Iris Belle</div> <div>1.5 CP</div> |
| <div>1.2 SME</div> <div>Sustainable Macroeconomics</div> <div>Prof. Dr. Katharina Gapp-Schmeling</div> <div>1.5 CP</div>                                                                       | <div>2.2 STP</div> <div>Smart Town Planning &amp; Land Policy</div> <div>Prof. Dr. Iris Belle</div> <div>1.5 CP</div>         | <div>3.2 SEC</div> <div>Smart Energy Concepts</div> <div>Dipl.-Ing. Cathrin Krumrey</div> <div>1.5 CP</div>                                                             | <div>4.2 GIS</div> <div>Geographic Information Systems</div> <div>Prof. Dr.-Ing. Angela Blanco-Vogt</div> <div>1.5 CP</div>                        | <div>5.2 SGS</div> <div>Smart Grid Solutions</div> <div>IPM</div> <div>Dr.-Ing. Tobias Weißbach</div> <div>1.5 CP</div>                                                                            | <div>6.2 PPR</div> <div>Pollution Prevention &amp; Recovery Strategies</div> <div>Prof. Dr. Jürgen Breuste</div> <div>1.5 CP</div>                                               | <div>7.2 SFI</div> <div>Sustainable Finance</div> <div>Prof. Dr. Tobias Popovic</div> <div>1.5 CP</div>                              | <div>8.2 PSS</div> <div>Public Services &amp; Public Sector Management</div> <div>Felix Bossner, M.A.</div> <div>1.5 CP</div>   | <div>10.2 MTP</div> <div>Master Thesis Proposal</div> <div>Prof. Dr. Iris Belle</div> <div>1.5 CP</div>                       |
| <div>1.3 SDC</div> <div>Societal Developments &amp; Challenges</div> <div>DI Ghazal Etminan</div> <div>1.5 CP</div>                                                                            | <div>2.3 SSI</div> <div>Smart Social Infrastructure &amp; Housing</div> <div>Prof. Dr. Iris Belle</div> <div>1.5 CP</div>     | <div>3.3 SET</div> <div>Smart Engineering &amp; Technologies</div> <div>Christine von Raven, M.A.</div> <div>1.5 CP</div>                                               | <div>4.3 CIM</div> <div>City Information Models</div> <div>Dipl.-Ing. Carsten Ransdorf</div> <div>1.5 CP</div>                                     | <div>5.3 SMM</div> <div>Smart Mobility Strategies &amp; Management</div> <div>IPM</div> <div>Dipl.-Ing. Rebecca Heckmann</div> <div>1.5 CP</div>                                                   | <div>6.3 SUB</div> <div>Smart Urban Biosphere &amp; Habitat (incl. Nutrition)</div> <div>Prof. Dr. Jürgen Breuste</div> <div>1.5 CP</div>                                        | <div>7.3 IPF</div> <div>Infrastructure &amp; Project Finance</div> <div>Prof. Dr. Tobias Popovic</div> <div>1.5 CP</div>             | <div>8.3 LAM</div> <div>Lean &amp; Agile Management Approaches</div> <div>Prof. Dr.-Ing. Jakob von Heyl</div> <div>1.5 CP</div> | <div>10.3 MTR</div> <div>Master Thesis Research</div> <div>Prof. Dr. Iris Belle</div> <div>2 CP</div>                         |
| <div>1.4 SPM</div> <div>Smart City Parameters &amp; Measuring</div> <div>Dr. Hans-Martin Neumann</div> <div>1.5 CP</div>                                                                       | <div>2.4 SUD</div> <div>Smart Urban Development Principles &amp; Concepts</div> <div>Dr. Haris Piplas</div> <div>1.5 CP</div> | <div>3.4 BIM</div> <div>Planning &amp; Building Processes, BIM, Certific.</div> <div>Dipl.-Ing. Peter Scheibstock</div> <div>Maroun Aad, M.Eng.</div> <div>1.5 CP</div> | <div>4.4 DPS</div> <div>Digital Platforms &amp; Services</div> <div>Jonas Marbeth, M. Sc.</div> <div>Dipl.-Ing. David Hick</div> <div>1.5 CP</div> | <div>5.4 SOM</div> <div>Smart Operations &amp; Maintenance</div> <div>Dipl.-Ing. Axel Kühn</div> <div>Dipl.-Ing. Johannes Winter</div> <div>1.5 CP</div>                                           | <div>6.4 RSM</div> <div>Resilience Strategies &amp; Measures</div> <div>Dr.-Ing. Nicole Baron</div> <div>1.5 CP</div>                                                            | <div>7.4 DFI</div> <div>Digitalization, Financial Innovation &amp; Technology</div> <div>Svenja Gillé, B.Sc.</div> <div>1.5 CP</div> | <div>8.4 LSM</div> <div>Leadership &amp; Stakeholder Management</div> <div>Prof. Dr. Iris Belle</div> <div>1.5 CP</div>         | <div>10.4 MTSC</div> <div>Master Thesis Project in Smart City Solutions</div> <div>Various supervisors</div> <div>23 CP</div> |
| <div>M9.1</div> <div>CASE STUDY</div> <div>FOCUS: URBANISM, BUILDING &amp; INFORMATION</div> <div>Prof. Dr. Iris Belle, Prof. Dr. Max Haug, Dr.-Ing. Hans-Martin Neumann</div> <div>6 CP</div> |                                                                                                                               |                                                                                                                                                                         |                                                                                                                                                    | <div>M9.2</div> <div>CASE STUDY</div> <div>FOCUS: INFRASTRUCTURE, MANAGEMENT &amp; FINANCE</div> <div>Prof. Dr. Iris Belle, Prof. Dr. Max Haug, Dr.-Ing. Hans-Martin Neumann</div> <div>6 CP</div> |                                                                                                                                                                                  |                                                                                                                                      |                                                                                                                                 | <div>10.5 MTPA</div> <div>Master Thesis Presentation &amp; Abstract</div> <div>Prof. Dr. Iris Belle</div> <div>2 CP</div>     |

ELECTIVES

Students can attend lectures of the Master Programme International Project Management (IPM) to specialize in individual subject. Attendance is extracurricular and does not replace of smart city solutions lectures. Credit points and grades earned in IPM do not count towards the SCS grade. Admission is subject to availability. This does not apply to the mandatory joint courses of Modules 5 and 6.

REMARKS

- > CP : Credit Points
- > ML : Module Leader
- > 

IPM

 Mandatory joint course with the Master Programme International Project Management (International Infrastructure and Technology Management IITM)