## Module title
**Introduction to e-Governance and Smart City**

<table>
<thead>
<tr>
<th>Module code</th>
<th>Level</th>
<th>Hours per week</th>
<th>ECTS credits</th>
<th>Duration</th>
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<tr>
<td>KEGO</td>
<td>Bachelor (B.Sc.)</td>
<td>3</td>
<td>5</td>
<td>14 weeks</td>
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### Module instructor
Amitrajit Sarkar, Ara Institute of Canterbury, Christchurch, New Zealand

### Lecture type
Lectures (onsite and virtual), case reading, on-line consultations, case discussion, Virtual Forum, problem solving sessions using Design Thinking

### Prerequisite(s)
Basic knowledge of Information System.

### Hours per week
3

### ECTS credits
5

### Duration
14 weeks

### Content
- **Complex Socio-technical Systems**
  - Information Systems in Organizations in context to Smart Cities
  - Conceptualizing cities as complex socio-technical systems
  - Implications on digitalization on cities
  - Foundations of e-Government
- **Literatures**
  - E-Government theories, views, methods and frameworks
  - E-Governance challenges and opportunities
- **Cases and Challenges**
  - Conceptualization of various smart Infrastructure systems, their opportunities and challenges
- **E-Governance and Policies**
  - e-Government project success
  - Smart Government and Smart Cities
  - Collective intelligence for smart cities and communities
  - Emerging technologies- Distributed Ledger Technology, AI and IoT in public sector
  - Potential of Digital and Data layers

### Upon the end of the module the students will have attained the following subject-matter competencies...
There is now a need for new paradigms for cities’ governance, knowledge creation and economic development, supported by technology, in every aspect of human life. By completing this course, the students should be able to:
- have a critical understanding of topics such as smart applications and the Internet of Things, Big Data and collective intelligence for cities, ubiquitous sensing and public mobility.
- appreciate potential of big and open data in enhancing e-government services, openness, government transparency, citizen engagement, and the interaction between governments, citizens, and businesses.
- compare and evaluate technical, organizational, managerial, socio-economic and policy related aspects of e-government implementation and adoption from both the government and citizen’s perspective.
- understand challenges to successful E-Government diffusion.
- apply concepts and tools in the case of smart urban energy and smart urban transportation systems.

### Grading
Assignment (2 in total), Weekly Participation (7 of 10 for a pass grade)

### Upon the end of the module the students will have attained the following personal and social competencies...
- Displaying skills required to lead and manage in organizational contexts.
- Demonstrating an ability to be creative and innovative in any organizational or entrepreneurial context.
- Displaying knowledge and understanding of all functions of management.
- Demonstrating ability to apply multidisciplinary thinking to address managerial challenges and opportunities.
- Demonstrating ability to identify the central problem/issue in a decision-making situation, gather relevant information, and apply appropriate tools to arrive at a solution.
- Demonstrating an ability to make reasoned choices in ambiguous and less structured managerial situations.
- Displaying effective oral and written communication, and professional presentation skills.
- Demonstrating professional approach in interacting with others.
- Demonstrating ability to make business decisions based on ethical considerations and awareness of responsibilities to all relevant stakeholders including society and environment.
- Developing interpersonal skills to effectively engage with a diverse set of people and contexts.
- Demonstrating an ability to work in teams.

**Textbook/teaching material**

None – No textbook required.

Course material, readings and cases will be provided

Selected readings from top Journal and conference proceedings

Note: this is not the official course descriptor according to the “Studien- und Prüfungsordnung” (SPO)