NIRMA UNIVERSITY
INDUSTRIAL DESIGN PROGRAMME
Bachelor of Design, Department of Design
Year IV, Semester VII

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Course Code	**IDPR 411 E**
Course Title	**Design of Public Utility Systems**

Course Learning Outcomes (CLO):

At the end of the course the students will:

1. Work in interdisciplinary teams to develop an understanding for design of public utility installations using participatory or co-creation techniques
2. Develop and understanding of space, materials and context from a humanistic perspective
3. Understand material manipulation, standards and technical requirements
4. Design, develop and prototype a conceptual solution

Syllabus: **Total Teaching hours**: **165**

Unit 1: Mapping the context **Teaching hours: 30**

1.1 Mapping the contextual relationships through systemic research methods
1.2 Develop models and understanding of design, erection, commissioning
1.3 Understanding costing and pricing mechanisms for public utilities
1.4 Speculative design methods for visualizing futures

Unit 2: Understanding technical requirements **Teaching hours: 30**

2.1 Standards of design, implementation, materials
2.2 User requirements and patterns of behaviour
2.3 Use, misuse, abuse scenarios
2.4 Design against vandalism

Unit 3: Conceptualizing futures: **Teaching hours: 42**

3.1 Speculative design methods
3.2 Projection techniques and trend mapping
3.3 Conceptual design with a thematic focus on future conditions
3.4 Representation techniques

Unit 4: Design and fabrication **Teaching hours: 63**

Suggested Readings:

1. *Gibson, D. (2009). The wayfinding handbook. New york: Princeton architectural Press.*
2. *van den Hoven, J., van den Hoven, J., Doorn, N., Swierstra, T., Koops, B. and Romijn, H. (n.d.). Responsible Innovation 1.*
3. *Lipps, A. and Lupton, E. (n.d.). The senses.*