

Pre-Semester Worklist

AY 2025-26

Theory: Elective – I (IOT&ES)

Faculty: Parag Narendra Achaliya

Semester: Odd Course

Class: TE (A & B)

Program: Comp

It's an appeal to all teaching faculty to take a review of all the following points and get sanction from the respective HOD. HODs may also add some other important aspects to improve TLP.

Sr. No.	Expected Activity	Action plan/Remark
1.	Theory/ Practical syllabus draft taken from University website only and GAP analysis	
2.	The relevance of the subject/course in the program. (with a brief history and general introduction)(kindly see at least the first five NPTEL videos of the course which is available free of charge on www.nptel.ac.in)	
3.	Pre-requisites of the subject/course.	
4.	4-6 Course Outcome (CO) statements (if not mentioned by University or otherwise) with an awareness of Bloom's Taxonomy	
5.	Experts/role models/industries related to the subject	
6.	Academic Calendar/Teaching plan and Course Information Sheet (CIS); awareness of online and In semester examination...	
7.	Career opportunities or Linkage of the subject/course in the industry. List of such industries?	
7.	Weightage of the course in GATE Exam, Previous GATE Q-paper discussion in such forum	
8.	Identify Lecture Delivery Tools :- Black Board/ Notes/ppt/ NPTEL/Guest lecture etc.	
9.	Identify internal Assessment Tools:-Tutorials/Assignments/Unit Test Conduction (Online/Offline)/Quiz/ Group Discussion etc.	
10.	Are all the required references/textbooks available in the library?	
11.	How many references do you plan to refer to?	
12.	Have you planned to arrange at least one Expert lecture or industry visit? (and its impact on GAP minimization)	
13.	Have you written an article or paper regarding your course?	
14.	Have you planned any activities such as case studies, mini-project, etc.?	
15.	Content beyond syllabus: Are you planning to teach/conduct practicals that are beyond the syllabus?	
16.	With reference to this course, your role is as syllabus setter/subject chairman/paper setter/moderator/examiner, etc.	
17.	Your plan to: explore real-life problems in the subject area, students engagement, and self-learning environment, something new which will create interest in the subject among students (i.e. innovation in teaching-learning)	

Note: -Faculty should be preparing a priori at least 3 lectures/subject.

1.	Theory/ Practical syllabus draft taken from University website only and GAP analysis
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The syllabus Copy is already available.

2.	The relevance of the subject/course in the program. (with a brief history and general introduction) (kindly see at least the first five NPTEL videos of the course which is available free of charge on www.nptel.ac.in)
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<https://nptel.ac.in/courses/106/105/106105166/>

<https://nptel.ac.in/courses/108/108/108108098/>

3.	Pre-requisites of the subject/course.
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Digital Electronics and Logic Design (210245)

4.	4-6 Course Outcome (CO) statements (if not mentioned by University or otherwise) with an awareness of Bloom's Taxonomy
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C305.1: **Understand** the fundamentals and need of Embedded Systems for the Internet of Things

C305.2: **Apply** IoT enabling technologies for developing IoT systems

C305.3: **Apply** design methodology for designing and implementing IoT applications

C305.4: **Analyze** IoT protocols for making IoT devices communication

C305.5: **Design** cloud-based IoT systems

C305.6: **Design** and **Develop** secured IoT applications

5.	Experts/role models/industries related to the subject
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Industries – Winjit, Opulent, Mitu Skillologies, etc.

6.	Academic Calendar/Teaching plan and Course Information Sheet (CIS); awareness of online and In semester examination...
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Academic Calendar/Teaching plan and Course Information Sheet (CIS) are already available.

In-sem Examination Dates (Tentative) –

7.	Career opportunities or Linkage of the subject/course in the industry. List of such industries?
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Industries – Winjit, Opulent, Mitu Skillologies, etc.

8.	Identify Lecture Delivery Tools :- Black Board/ Notes/ppt/ NPTEL/Guest lecture etc.	Notes, PPT, NPTEL
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9.	Identify internal Assessment Tools :-Tutorials/Assignments/Unit Test Conduction (Online/Offline)/Quiz/ Group Discussion etc.	Assignments, Mock Insem & Endsem Exam
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10.	Are all the required references/textbooks available in the library?	No
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11.	How many references do you plan to refer to?	2
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1. Dawoud Shenouda Dawoud, Peter Dawoud, "Microcontroller and Smart Home Networks", ISBN: 9788770221566, e-ISBN: 9788770221559
2. David Hanes, Gonzalo Salgueiro, Robert Barton, Jerome Henry, "IoT Fundamentals: Networking Technologies, Protocols, and Use Cases for the Internet of Things", Cisco Press, ISBN-13: 978-1-58714-456-1 ISBN-10: 1-58714-456-5
3. David Etter, "IoT Security: Practical guide book", Amazon kindle Page numbers, source ISBN: 1540335011.
4. Brian Russell, Drew Van Duren, "Practical Internet of Things Security", Second Edition, Packt Publishing, ISBN: 9781788625821

12.	Have you planned to arrange at least one Expert lecture or industry visit? (and its impact on GAP minimization)	Yes
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13.	Have you written an article or paper regarding your course?	Yes
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14.	Have you planned any activities such as case studies, mini-project, etc.?	Yes
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15.	Content beyond syllabus: Are you planning to teach/conduct practicals that are beyond the syllabus?	
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Yes

16	With reference to this course, your role is as syllabus setter/subject chairman/paper setter/moderator/examiner, etc.	Examiner
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