



AALIM MUHAMMED SALEGH COLLEGE OF ENGINEERING
AVADI - IAF, CHENNAI-55
DEPARTMENT OF CIVIL ENGINEERING



Programme Educational Objectives (PEO's)

PEO1	To proactively work as responsible professionals effectively discharging their duties in an independent or team environment in civil engineering or related fields.
PEO2	To pursue lifelong learning in furtherance of research or other specific career programs.
PEO3	To effectively address challenging problems in civil engineering or related fields by providing sustainable solutions using modern tools.
PEO4	To enable the graduates in gaining employment in industry and stabilize themselves as competent professionals in applying their technical skills in real time problems and meet the diversified needs of industry, academia and research.

1. **Programme Outcomes(POs) and Programme Specific Outcomes (PSOs) for the Institute**

Programme Outcomes (Pos) Engineering Graduates will be able to:

PO1	Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals and civil engineering specialization to the solution of complex civil engineering problems.
PO2	Problem analysis: Identify, formulate, review research literature, and analyze complex civil engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
PO3	Design/development of solutions: Design solutions for complex civil engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations .
PO4	Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
PO5	Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and modeling to complex engineering activities with an understanding of the limitations.
PO6	The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional civil engineering practice.
PO7	Environment and sustainability: Understand the impact of professional civil engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
PO8	Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of civil engineering practice.

PO9	Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO10	Communication: Communicate effectively on complex civil engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
PO11	Project management and finance: Demonstrate knowledge and understanding of civil engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environment.
PO12	Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

2. Programme Specific Outcomes (PSOs) for Civil Engineering

PSO1	To identify, formulate and solve civil engineering problems by applying knowledge of science, mathematics and engineering leveraging skills, techniques and various modern tools.
PSO2	To meet desired economic, environmental, ethical, and sustainability constraints while designing civil engineering system or elements.

3. Attainment of course outcome for Civil Engineering

The evaluation of a course outcome is based on students' performance in internal assessments, assignments, seminars, the university examination, and the course exit survey. For direct assessment, internal assessments, assignments, and student seminars collectively contribute 60% to the overall attainment of a course outcome, while the university examination contributes 40%.

Overall Direct Assessment evaluated as follows :

Weightage to Internal assessment, assignment, Seminar and University Examinations: 80%

Indirect Assessment evaluated as follows:

Weightage applied to Course Exit Survey: 20%.

Theory courses:

The attainment of course outcomes by students is evaluated for each theory course through two internal assessment tests, model examination conducted by the department and an end-semester examination conducted by the affiliated university. These assessments are designed to shift students from "what they learn" to "how to deliver." They are direct methods used to determine a student's understanding of the subject, acquisition and application of knowledge, and problem-solving abilities. Additionally, assignments and seminars serve as direct assessment methods, fostering deeper thinking and greater engagement with the course material. Well-crafted writing assignments, in particular, encourage students to reflect more profoundly on their learning.

Lab courses:

The attainment of course outcomes by students in lab courses is assessed through various methods: evaluating performance on individual experiments, a model practical exam conducted by the department, and the end-semester examination conducted by the affiliating university. These assessments, which include oral examinations (viva voce), determine the students' understanding of the subject, knowledge acquisition, ability to apply that knowledge, and problem-solving capabilities.

Project:

The attainment of course outcomes by students on projects is assessed through three departmental reviews, a final project demonstration given by the student, and an end-semester examination conducted by the affiliated university. In addition to the main project in the program's final semester, students undertake mini projects in the seventh semester, supervised by faculty. During these projects, students apply their knowledge in field also industries.

Alongside these direct assessments, indirect assessments are also employed. These include course exit surveys to evaluate course and program outcomes, and student feedback forms to enhance the learning experience by reviewing content and course delivery.

4. Attainment of Course Outcomes of all courses with respect to set attainment levels

Measuring Course Outcomes attained through Internal Assessments and University Examinations for Theory Evaluation:

The Department has set Attainment level for the Course Outcomes of all courses in the internal assessments and university examination are defined for 2018-2022 batch as:

Academic Year	Attainment Level 1	Attainment Level 2	Attainment Level 3
2018-2022	Student scores between $\geq 50\%$ and $< 55\%$	Student scores between $> 55\%$ and $< 60\%$	Student scores $\geq 60\%$

Measuring Course Outcomes attained through Internal Assessments and University Examinations for Laboratory and Project Evaluation:

The Department has set Attainment level for the Course Outcomes of all courses in the internal assessments and university examination are defined for 2018-2022 batch as:

Academic Year	Attainment Level 1	Attainment Level 2	Attainment Level 3
2018-2022	Student scores between $\geq 50\%$ and ≤ 59	Student scores between $\geq 60\%$ and $\leq 69\%$	Student scores $\geq 70\%$

4. **Assessment tools and process used for measuring the attainment of each of the program outcomes and program specific outcomes**

5. Overall attainment including direct and indirect survey:

- Weightage to direct assessment : 80%
- Weightage to indirect assessment: 20%

List of Courses for Regulation 2017			
S.No	Course	Subject	Course
SEMESTER I			
1	C101	HS8151	Communicative English
2	C102	MA8151	Engineering Mathematics – I
3	C103	PH8151	Engineering Physics
4	C104	CY8151	Engineering Chemistry
5	C105	GE8151	Problem Solving and Python Programming
6	C106	GE8152	Engineering Graphics
7	C107	GE8161	Problem Solving and Python Programming Laboratory
8	C108	BS8161	Physics and Chemistry Laboratory
SEMESTER II			
9	C109	HS8251	Technical English
10	C110	MA8251	Engineering Mathematics – II
11	C111	PH8201	Physics for Civil Engineering
12	C112	BE8251	Basic Electrical and Electronics Engineering
13	C113	GE8291	Environmental Science and Engineering
14	C114	GE8292	Engineering Mechanics
15	C115	GE8261	Engineering Practices Laboratory
16	C116	CE8211	Computer Aided Building Drawing
SEMESTER III			
17	C201	MA8353	Transforms and Partial Differential Equations
18	C202	CE8301	Strength of Materials I
19	C203	CE8302	Fluid Mechanics
20	C204	CE8351	Surveying
21	C205	CE8391	Construction Materials
22	C206	CE8392	Engineering Geology
23	C207	CE8311	Construction Materials Laboratory
24	C208	CE8361	Surveying Laboratory
25	C209	HS8381	Interpersonal Skills / Listening and Speaking
SEMESTER IV			
26	C210	MA8491	Numerical Methods
27	C211	CE8401	Construction Techniques and Practices

28	C212	CE8402	Strength of Materials II
29	C213	CE8403	Applied Hydraulic Engineering
30	C214	CE8404	Concrete Technology
31	C215	CE8491	Soil Mechanics
32	C216	CE8481	Strength of Materials Laboratory
33	C217	CE8461	Hydraulic Engineering Laboratory
34	C218	HS8461	Advanced Reading and Writing
SEMESTER V			
35	C301	CE8501	Design of Reinforced Cement Concrete Elements
36	C302	CE8502	Structural Analysis I
37	C303	EN8491	Water Supply Engineering
38	C304	CE8591	Foundation Engineering
39	C305	OA1551	Environmental and Agriculture
40	C306	GE8071	Disaster Management
41	C307	CE8511	Soil Mechanics Laboratory
42	C308	CE8512	Water and Waste Water Analysis Laboratory
43	C309	CE8513	Survey Camp
SEMESTER VI			
44	C310	CE8601	Design of Steel Structural Elements
45	C311	CE8602	Structural Analysis II
46	C312	CE8603	Irrigation Engineering
47	C313	CE8604	Highway Engineering
48	C314	EN8592	Wastewater Engineering
49	C315	CE8005	Air Pollution and Control Engineering
50	C316	CE8611	Highway Engineering Laboratory
51	C317	CE8612	Irrigation and Environmental Engineering Drawing
52	C318	HS8581	Professional Communication
SEMESTER VII			
53	C401	CE8701	Estimation, Costing and Valuation Engineering
54	C402	CE8702	Railways, Airports, Docks and Harbour Engineering
55	C403	CE8703	Structural Design and Drawing
56	C404	EN8591	Municipal Solid Waste Management
57	C405	CE8711	Creative and Innovative Project
58	C406	CE8712	Industrial Training
SEMESTER VIII			
59	C407	GE8076	Professional Ethics in Engineering
60	C408	CE8020	Maintenance, Repair and Rehabilitation of Structures

61	C409	CE8811	Project Work
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6. CO PO MAPPING EACH COURSE FOR REGULATION 2017

CO	Program Outcomes	Program Specific Outcomes
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C101 / HS8151 - COMMUNICATIVE ENGLISH

C101	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO 11	PO 12	PS O1	PS O2
C101.1	3	2	1	1	-	-	-	-	-	-	-	-	2	2
C101.2	3	2	1	1	-	-	-	-	-	-	-	-	2	2
C101.3	3	2	-	-	-	-	-	-	-	-	-	-	2	2
C101.4	3	2	-	-	-	-	-	-	-	-	-	-	2	2
C101.5	3	2	1	1	-	-	-	-	-	-	-	-	2	2
AVG	3	2	1	1	-	-	-	-	-	-	-	-	2	2

C102 / MA 8151- ENGINEERING MATHEMATICS-I

C102	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO 11	PO 12	PS O1	PS O2
C102.1	2	-	-	-	1	-	-	-	-	-	-	-	2	-
C102.2	2	1	1	1	1	-	-	-	-	-	-	-	2	1
C102.3	2	1	1	1	1	-	-	-	-	-	-	-	2	1
C102.4	2	1	1	-	-	-	-	-	-	-	-	-	2	1
C102.5	2	-	-	1	-	-	-	-	-	-	-	-	2	-
AVG	2	1	1	1	1	-	-	-	-	-	-	-	2	1

C103 / PH 8151- ENGINEERING PHYSICS

C103	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO 11	PO 12	PS O1	PS O2
C103.1	3	2	-	-	-	-	-	-	-	-	-	-	3	2
C103.2	3	2	1	1	-	-	-	-	-	-	-	-	3	2
C103.3	3	2	1	1	-	-	-	-	-	-	-	-	3	2
C103.4	3	2	1	1	-	-	-	-	-	-	-	-	3	2
C103.5	3	2	-	-	-	-	-	-	-	-	-	-	3	2
AVG	3	2	1	1	0	0	0	0	0	0	0	0	3	2

C104 / CY8151 - ENGINEERING CHEMISTRY

C104	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO 11	PO 12	PS O1	PS O2
C104.1	3	2	1	1	-	-	-	-	-	-	-	-	2	-
C104.2	3	2	1	1	-	-	-	-	-	-	-	-	2	-
C104.3	3	2	-	-	-	-	-	-	-	-	-	-	2	1
C104.4	3	2	1	1	-	-	-	-	-	-	-	-	2	1
C104.5	3	2	-	-	-	-	-	-	-	-	-	-	2	1
AVG	3	2	1	1	-	-	-	-	-	-	-	-	2	1

C105 / GE8151 - PROBLEM SOLVING AND PYTHON PROGRAMMING

C105	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO 11	PO 12	PS O1	PS O2
C105.1	2	2	2	1	2	-	-	-	-	-	-	-	3	-
C105.2	2	2	2	1	2	-	-	-	-	-	-	-	3	-
C105.3	2	2	2	-	2	-	-	-	-	-	-	-	3	-
C105.4	2	2	2	1	2	-	-	-	-	-	-	-	3	-
C105.5	2	2	2	-	2	-	-	-	-	-	-	-	3	-
AVG	2	2	2	1	2	0	0	0	0	0	0	2	3	0

C10 8.4	3	2	1	1	-	-	-	-	-	-	-	-	2	1
C10 8.5	3	2	1	-	-	-	-	-	-	-	-	-	2	1
AV G	3	2	1	1	0	0	0	0	0	0	0	0	2	1

C109 / HS8251-TECHNICAL ENGLISH

C10 9	P O1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO 11	PO 12	PS O1	PSO 2
C10 9.1	1	-	-	-	-	-	-	-	-	1	-	1	1	-
C10 9.2	1	-	-	-	-	-	-	-	-	1	-	-	1	-
C10 9.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C10 9.4	1	-	-	-	-	-	-	-	-	1	-	-	1	-
C10 9.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AV G	1	0	0	0	0	0	0	0	0	1	0	0	1	0

C110 / MA 8251- ENGINEERING MATHEMATICS-II

C11 0	P O1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO 11	PO 12	PS O1	PSO 2
C11 0.1	1	-	-	-	-	-	-	-	-	-	-	-	2	-
C11 0.2	-	1	1	-	-	-	-	-	-	-	-	-	2	1
C11 0.3	1	-	1	-	-	-	-	-	-	-	-	-	2	-
C11 0.4	-	1	1	-	-	-	-	-	-	-	-	-	2	1
C11 0.5	1	1	-	-	-	-	-	-	-	-	-	-	2	1
AV G	1	1	1	0	0	0	0	0	0	0	0	0	2	1

C111 / PH 8201- PHYSICS FOR CIVIL ENGINEERING

AV G	2	1	1	1	2	0	0	0	0	0	0	0	2	1
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C114 / GE8292- ENGINEERING MECHANICS

C11 4	P O1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO 11	PO 12	PS O1	PSO 2
C11 4.1	2	-	-	-	-	-	-	-	-	-	-	-	2	-
C11 4.2	2	1	-	-	1	-	-	-	-	-	-	-	2	-
C11 4.3	2	-	1	1	-	-	-	-	-	-	-	-	2	1
C11 4.4	2	1	1	1	1	-	-	-	-	-	-	-	2	1
C11 4.5	3	1	1	1	1	-	-	-	-	-	-	-	2	1
AV G	2	1	1	1	1	0	0	0	0	0	0	0	2	1

C115 / GE8261-ENGINEERING PRACTICES LABORATORY

C11 5	P O1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO 11	PO 12	PS O1	PSO 2
C11 5.1	3	3	-	-	-	3	-	-	-	-	-	1	2	-
C11 5.2	3	3	-	-	-	3	-	-	-	-	-	1	2	-
C11 5.3	3	3	-	-	-	3	-	-	-	-	-	1	2	-
C11 5.4	3	3	-	-	-	3	-	-	-	-	-	1	2	-
C11 5.5	3	3	-	-	-	3	-	-	-	-	-	1	2	-
AV G	3	3	0	0	0	3	0	0	0	0	0	1	2	0

C116 / CE8211 –COMPUTER AIDED BUILDING DRAWING

C11 6	P O1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO 11	PO 12	PS O1	PSO 2
C11 6.1	3	3	3	-	3	-	-	-	-	-	-	2	2	-
C11 6.2	3	3	3	-	3	-	-	-	-	-	-	2	2	-

C11 6.3	3	3	3	-	3	-	-	-	-	-	-	2	2	-
C11 6.4	3	3	3	-	3	-	-	-	-	-	-	2	2	-
C11 6.5	3	3	3	-	3	-	-	-	-	-	-	2	2	-
AV G	3	3	3	0	3	0	0	0	0	0	0	2	2	0

C201 / MA8353- TRANSFORM AND PARTIAL DIFFERENTIAL EQUATION

C20 1	P O1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO 11	PO 12	PS O1	PSO 2
C20 1.1	2	1	-	-	1	-	-	-	-	-	-	-	2	1
C20 1.2	2	1	-	1	-	-	-	-	-	-	-	-	2	1
C20 1.3	2	1	1	-	1	-	-	-	-	-	-	-	2	1
C20 1.4	2	-	1	1	1	-	-	-	-	-	-	-	2	-
C20 1.5	2	-	1	1	-	-	-	-	-	-	-	-	2	-
AV G	2	1	1	1	1	0	0	0	0	0	0	0	2	1

C202 / CE8301- STRENGTH OF MATERIALS I

C20 2	P O1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO 11	PO 12	PS O1	PSO 2
C20 2.1	3	2	-	-	-	-	-	-	-	-	-	-	3	2
C20 2.2	3	2	1	1	-	-	-	-	-	-	-	-	3	2
C20 2.3	3	2	1	1	-	-	-	-	-	-	-	1	3	2
C20 2.4	3	2	-	-	-	-	-	-	-	-	-	1	3	2
C20 2.5	3	2	1	1	-	-	-	-	-	-	-	1	3	2
AV G	3	2	1	1	0	0	0	0	0	0	0	1	3	2

C203 / CE8302- FLUID MECHANICS

C20 3	P O1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO 11	PO 12	PS O1	PSO 2
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C20 3.1	2	1		-	-	-	-	-	-	-	-	-	2	1
C20 3.2	2	-	1	-	-	-	-	-	-	-	-	-	2	1
C20 3.3	2	-	1	-	-	-	-	-	-	-	-	-	2	-
C20 3.4	2	1	1	-	-	-	-	-	-	-	-	-	2	
C20 3.5	2	1	-	-	-	-	-	-	-	-	-	-	2	1
AV G	2	1	1	0	0	0	0	0	0	0	0	0	2	1

C204 / CE8351- SURVEYING

C20 4	P O1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO 11	PO 12	PS O1	PSO 2
C20 4.1	2	1	-	-	-	-	-	-	-	-	-	-	2	1
C20 4.2	2	-	-	-	-	-	-	-	-	-	-	-	2	1
C20 4.3	2	-	1	1	-	-	-	-	-	-	-	-	2	-
C20 4.4	2	1	1	1	-	-	-	-	-	-	-	-	2	1
C20 4.5	2	1	1	1	-	-	-	-	-	-	-	-	3	-
AV G	2	1	1	1	0	0	0	0	0	0	0	0	2	1

C205 / CE8391- CONSTRUCTION MATERIALS

C20 5	P O1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO 11	PO 12	PS O1	PSO 2
C20 5.1	3	3	2	-	-	-	-	-	-	-	-	-	2	-
C20 5.2	3	3	2	-	-	-	-	-	-	-	-	-	2	-
C20 5.3	3	3	2	-	-	-	-	-	-	-	-	-	2	-
C20 5.4	3	3	2	-	-	-	-	-	-	-	-	-	2	-
C20 5.5	3	3	2	-	-	-	-	-	-	-	-	-	2	-
AV G	3	3	2	0	0	0	0	0	0	0	0	0	2	0

C206 / CE8392 – ENGINEERING GEOLOGY

C216 / CE8481 STRENGTH OF MATERIALS LABORATORY

C216	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PSO 2
C216 .1	3	2	3	-	2	-	-	-	-	-	-	-	2	-
C216 .2	3	2	3	-	2	-	-	-	-	-	-	-	2	-
C216 .3	3	2	3	-	2	-	-	-	-	-	-	-	2	-
C216 .4	3	2	3	-	2	-	-	-	-	-	-	-	2	-
C216 .5	3	2	3	-	2	-	-	-	-	-	-	-	2	-
AVG	3	2	3	0	2	0	0	0	0	0	0	0	2	0

C217 / CE8461 HYDRAULIC ENGINEERING LABORATORY

C217	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PSO 2
C217 .1	3	1	3	-	-	-	-	-	-	-	-	-	2	-
C217 .2	3	1	3	-	-	-	-	-	-	-	-	-	2	-
C217 .3	3	1	3	-	-	-	-	-	-	-	-	-	2	-
C217 .4	3	1	3	-	-	-	-	-	-	-	-	-	2	-
C217 .5	3	1	3	-	-	-	-	-	-	-	-	-	2	-
AVG	3	1	3	0	0	0	0	0	0	0	0	0	2	0

C218 / HS8461 ADVANCE READING AND WRITING

C218	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PSO 2
C218 .1	-	-	-	-	-	-	-	-	3	3	1	2	2	1
C218 .2	-	-	-	-	-	-	-	-	3	3	1	2	2	1

C218 .3	-	-	-	-	-	-	-	-	-	3	3	1	2	2	1
C218 .4	-	-	-	-	-	-	-	-	-	3	3	1	2	2	1
C218 .5	-	-	-	-	-	-	-	-	-	3	3	1	2	2	1
AVG	0	0	0	0	0	0	0	0	0	3	3	1	2	2	1

C301 / CE8501- DESIGN OF REINFORCED CONCRETE AND STRUCTURES

C301	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	P O8	PO 9	PO 10	PO 11	PO 12	PS O1	PSO 2
C301 .1	3	1	-	-	-	-	-	-	-	-	-	-	3	2
C301 .2	3	-	1	1	-	-	-	-	-	-	-	-	3	2
C301 .3	3	-	-	1	-	-	-	-	-	-	-	1	3	2
C301 .4	3	1	-	-	-	-	-	-	-	-	-	1	3	2
C301 .5	3	1	1	1	-	-	-	-	-	-	-	1	3	2
AVG	3	1	1	1	0	0	0	0	0	0	0	1	3	2

C302 / CE8502 STRUCTURAL ANALYSIS I

C302	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	P O8	PO 9	PO 10	PO 11	PO 12	PS O1	PSO 2
C302 .1	2	-	1	-	-	-	-	-	-	-	-	-	2	-
C302 .2	2	-	-	-	-	-	-	-	-	-	-	-	2	-
C302 .3	2	1	1	1	1	-	-	-	-	-	-	-	2	-
C302 .4	2	1	1	1	1	-	-	-	-	-	-	-	2	-
C302 .5	2	1	-	1	1	-	-	-	-	-	-	-	2	-
AVG	2	1	1	1	1	0	0	0	0	0	0	0	2	0

C303 / EN8491-WATER SUPPLY ENGINEERING

C303	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	P O8	PO 9	PO 10	PO 11	PO 12	PS O1	PSO 2
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C303 .1	2	1	-	-	2	-	-	-	-	-	-	-	2	-
C303 .2	2	1	1	1	2	-	-	-	-	-	-	-	2	-
C303 .3	2	1	1	1	2	-	-	-	-	-	-	-	2	-
C303 .4	2	-	1	-	2	-	-	-	-	-	-	-	2	-
C303 .5	2	-	-	1	2	-	-	-	-	-	-	-	2	-
AVG	2	1	1	1	2	0	0	0	0	0	0	0	2	0

C304 / CE8591- FOUNDATION ENGINEERING

C304	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	P O8	PO 9	PO 10	PO 11	PO 12	PS O1	PSO 2
C304 .1	2	1	1	-	-	-	-	-	-	-	-	-	2	-
C304 .2	2	1	1	-	-	-	-	-	-	-	-	-	2	-
C304 .3	2	1	1	1	-	-	-	-	-	-	-	-	2	-
C304 .4	2	-	-	1	-	-	-	-	-	-	-	-	2	-
C304 .5	2	-	-	1	-	-	-	-	-	-	-	-	2	-
AVG	2	1	1	1	0	0	0	0	0	0	0	0	2	0

C305 /OA1551 ENVIRONMENT AND AGRICULTURE

C305	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	P O8	PO 9	PO 10	PO 11	PO 12	PS O1	PSO 2
C305 .1	3	1	2	-	-	-	-	-	-	3	-	-	2	-
C305 .2	3	1	2	-	-	-	-	-	-	3	-	-	2	-
C305 .3	3	1	2	-	-	-	-	-	-	3	-	-	2	-
C305 .4	3	1	2	-	-	-	-	-	-	3	-	-	2	-
C305 .5	3	1	2	-	-	-	-	-	-	3	-	-	2	-
AVG	3	1	2	0	0	0	0	0	0	3	0	0	2	0

C410 .2	2	1	-	-	-	-	-	-	-	-	-	1	-	2	1
C410 .3	2	-	-	-	-	-	-	-	-	-	-	1	-	2	1
C410 .4	2	-	-	-	-	-	-	-	-	-	-	1	-	2	1
C410 .5	2	1	-	-	-	-	-	-	-	-	-	-	-	2	1
AVG	2	1	0	0	0	0	0	0	0	0	0	1	0	2	1

C409 / CE8811 Project Work

C411	PO 1	PO 2	PO 3	PO 4	P O5	P O6	P O7	PO 8	PO 9	PO1 0	PO1 1	PO 12	PSO 1	PSO 2
C411 .1	3	3	-	3	-	2	2	1	-	-	-	2	2	1
C411 .2	3	3	-	3	-	2	2	1	-	-	-	2	2	1
C411 .3	3	3	-	3	-	2	2	1	-	-	-	2	2	1
C411 .4	3	3	-	3	-	2	2	1	-	-	-	2	2	1
C411 .5	3	3	-	3	-	2	2	1	-	-	-	2	2	1
AVG	3	3	0	3	0	2	2	1	0	0	0	2	2	1

7. CO PO Matrices

S. No	Cours e	Subject	PO 1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
1	C101	HS8151	3	2	1	1	0	0	0	0	0	0	0	0
2	C102	MA8151	2	1	1	1	1	0	0	0	0	0	0	0
3	C103	PH8151	3	2	1	1	0	0	0	0	0	0	0	0
4	C104	CY8151	3	2	1	1	0	0	0	0	0	0	0	0
5	C105	GE8151	2	2	2	1	2	0	0	0	0	0	0	2
6	C106	GE8152	3	2	1	1	0	0	0	0	0	1	0	0
7	C107	GE8161	2	1	2	1	2	0	0	0	0	0	0	0
8	C108	BS8161	3	2	1	1	0	0	0	0	0	0	0	0
9	C109	HS8251	1	0	0	0	0	0	0	0	0	1	0	0
10	C110	MA8251	1	1	1	0	0	0	0	0	0	0	0	0
11	C111	PH8201	3	1	0	0	0	0	0	0	0	0	0	0
12	C112	BE8251	1	0	0	0	0	0	0	0	0	0	0	0
13	C113	GE8291	2	1	1	1	2	0	0	0	0	0	0	0
14	C114	GE8292	2	1	1	1	1	0	0	0	0	0	0	0
15	C115	GE8261	3	3	0	0	0	3	0	0	0	0	0	1
16	C116	CE8211	3	3	3	0	3	0	0	0	0	0	0	2

17	C201	MA8353	2	1	1	1	1	0	0	0	0	0	0	0
18	C202	CE8301	3	2	1	1	0	0	0	0	0	0	0	1
19	C203	CE8302	2	1	1	0	0	0	0	0	0	0	0	0
20	C204	CE8351	2	1	1	1	0	0	0	0	0	0	0	0
21	C205	CE8391	3	3	2	0	0	0	0	0	0	0	0	0
22	C206	CE8392	2	1	1	1	0	0	0	0	0	0	0	0
23	C207	CE8311	3	3	3	0	2	0	0	0	0	0	0	0
24	C208	CE8361	3	3	3	0	2	0	0	0	0	0	0	0
25	C209	HS8381	0	0	0	0	0	0	0	0	3	3	1	2
26	C210	MA8491	3	1	1	1	0	0	0	0	0	0	0	0
27	C211	CE8401	2	1	1	0	0	0	0	0	0	0	0	0
28	C212	CE8402	2	1	1	1	1	0	0	0	0	0	0	0
29	C213	CE8403	2	1	1	1	1	0	0	0	0	0	0	0
30	C214	CE8404	2	1	1	0	0	0	0	0	0	0	0	0
31	C215	CE8491	2	1	1	1	0	0	0	0	0	0	0	0
32	C216	CE8481	3	2	3	0	2	0	0	0	0	0	0	0
33	C217	CE8461	3	1	3	0	0	0	0	0	0	0	0	0
34	C218	HS8461	0	0	0	0	0	0	0	0	3	3	1	2
35	C301	CE8501	3	1	1	1	0	0	0	0	0	0	0	1
36	C302	CE8502	2	1	1	1	1	0	0	0	0	0	0	0
37	C303	EN8491	2	1	1	1	2	0	0	0	0	0	0	0
38	C304	CE8591	2	1	1	1	0	0	0	0	0	0	0	0
39	C305	OA1551	3	1	2	0	0	0	0	0	0	3	0	0
40	C306	GE8071	2	1	1	1	1	0	0	0	0	0	0	0
41	C307	CE8511	3	2	3	0	2	0	0	0	0	0	0	0
42	C308	CE8512	3	1	1	0	3	0	0	0	0	0	0	0
43	C309	CE8513	3	1	1	0	3	0	0	0	0	0	0	0
44	C310	CE8601	3	1	1	0	3	0	0	0	0	0	0	0
45	C311	CE8602	3	2	1	1	1	0	0	0	2	2	0	0
46	C312	CE8603	2	1	1	0	0	0	1	0	0	0	0	0
47	C313	CE8604	3	1	1	1	0	0	0	0	0	0	0	0
48	C314	EN8592	2	1	0	0	0	0	0	0	0	0	1	0
49	C315	CE8005	2	1	1	1	1	0	0	0	0	0	0	0
50	C316	CE8611	1	0	2	0	3	0	0	0	0	0	0	0
51	C317	CE8612	3	3	3	2	3	0	0	0	0	0	0	0
52	C318	HS8581	0	0	0	0	0	0	0	0	0	0	0	0
53	C401	CE8701	2	2	1	1	0	0	0	0	0	0	0	0
54	C402	CE8702	3	1	1	1	1	0	0	0	0	0	0	0
55	C403	CE8703	2	1	1	1	0	0	0	0	0	0	0	0
56	C404	EN8591	2	1	1	0	0	0	0	0	0	0	1	0
57	C405	CE8711	3	1	1	1	1	0	0	0	0	0	0	0
58	C406	CE8712	3	2	1	1	1	0	0	0	0	2	0	0
59	C407	GE8076	2	1	0	0	0	0	0	0	1	1	1	0
60	C408	CE8020	2	1	0	0	0	0	0	0	0	0	1	0
61	C409	CE8811	3	3	0	3	0	2	2	1	0	0	0	2

PSO Mapping matrices

S.No	Course	Subejct	PS01	PSO2
1	C101	HS8151	2	2
2	C102	MA8151	2	1
3	C103	PH8151	3	2
4	C104	CY8151	2	1
5	C105	GE8151	3	0
6	C106	GE8152	2	0
7	C107	GE8161	3	0
8	C108	BS8161	2	1
9	C109	HS8251	1	0
10	C110	MA8251	2	1
11	C111	PH8201	2	1
12	C112	BE8251	1	0
13	C113	GE8291	1	0
14	C114	GE8292	2	1
15	C115	GE8261	2	1
16	C116	CE8211	2	0
17	C201	MA8353	2	1
18	C202	CE8301	3	2
19	C203	CE8302	2	1
20	C204	CE8351	2	1
21	C205	CE8391	2	0
22	C206	CE8392	2	1
23	C207	CE8311	2	0
24	C208	CE8361	3	0
25	C209	HS8381	2	2
26	C210	MA8491	2	0
27	C211	CE8401	2	0
28	C212	CE8402	2	1
29	C213	CE8403	2	0
30	C214	CE8404	2	1
31	C215	CE8491	0	2
32	C216	CE8481	2	0
33	C217	CE8461	2	0
34	C218	HS8461	2	1
35	C301	CE8501	3	2
36	C302	CE8502	2	0
37	C303	EN8491	2	0
38	C304	CE8591	2	0
39	C305	OA1551	2	0
40	C306	GE8071	2	1
41	C307	CE8511	2	0
42	C308	CE8512	2	0

43	C309	CE8513	1	2
44	C310	CE8601	2	1
45	C311	CE8602	2	1
46	C312	CE8603	2	1
47	C313	CE8604	2	1
48	C314	EN8592	2	1
49	C315	CE8005	1	1
50	C316	CE8611	2	0
51	C317	CE8612	2	1
52	C318	HS8581	1	0
53	C401	CE8701	0	2
54	C402	CE8702	2	1
55	C403	CE8703	2	1
56	C404	EN8591	2	1
57	C405	CE8711	2	2
58	C406	CE8712	3	2
59	C407	GE8076	0	0
60	C408	CE8020	2	1
61	C409	CE8811	2	1