Computational Methods for Civil Engineers Using MATLAB.

DateofCommencement	27th March, 2025 – 16th April, 2025
CourseDuration	8days
NumberofParticipants	188
Conductedby	DepartmentofCivil Engineering,RERFGI
NameandAffiliationofInstructor	Mr. Rahul Das Assistant Professor, DepartmentofCivil Engineering,RERFGI

OverviewoftheProgramme

Workshop Overview

This 8-day workshop is designed to provide participants with a comprehensive introduction to MATLAB, covering its fundamentals, programming, and applications.

Topics Covered

1. Day 1-2: MATLAB Basics
   - Introduction to MATLAB
   - Basic syntax and data types
   - Variables, operators, and control structures
2. Day 3-4: MATLAB Programming
   - Writing scripts and functions
   - Loops, conditional statements, and debugging
   - Data visualization and plotting
3. Day 5: Data Analysis and Visualization
   - Importing and manipulating data
   - Statistical analysis and data visualization
   - Plotting and charting
4. Day 6: Advanced Topics
   - Advanced data structures (e.g., cell arrays, structures)
   - Object-oriented programming
   - File input/output and data import/export
5. Day 7: Applications and Case Studies
   - Signal processing and filtering
   - Image processing and analysis
   - Real-world applications and case studies
6. Day 8: Project Work and Wrap-up

- Participants work on individual projects
- Final Q&A and wrap-up

Workshop Objectives
- Understand MATLAB basics and programming
- Learn data analysis, visualization, and advanced techniques
- Apply MATLAB to real-world problems and projects
- Gain hands-on experience with MATLAB

Course Details

CourseOutcomes

After completion of the course, the students will be able to:

CO1:Introduction to MATLAB, Basic syntax and data types, Variables, operators, and control structures

CO2: Writing scripts and functions, Loops, conditional statements, debugging,Data visualization and plotting

CO3:Importing and manipulating data, Statistical analysis and data visualization, Plotting and charting

CO4:Advanced data structures (e.g., cell arrays, structures), Object-oriented programming

File input/output and data import/export

CO5: Applications and Case Studies, Signal processing and filtering, Image processing and analysis

Real-world applications and case studies

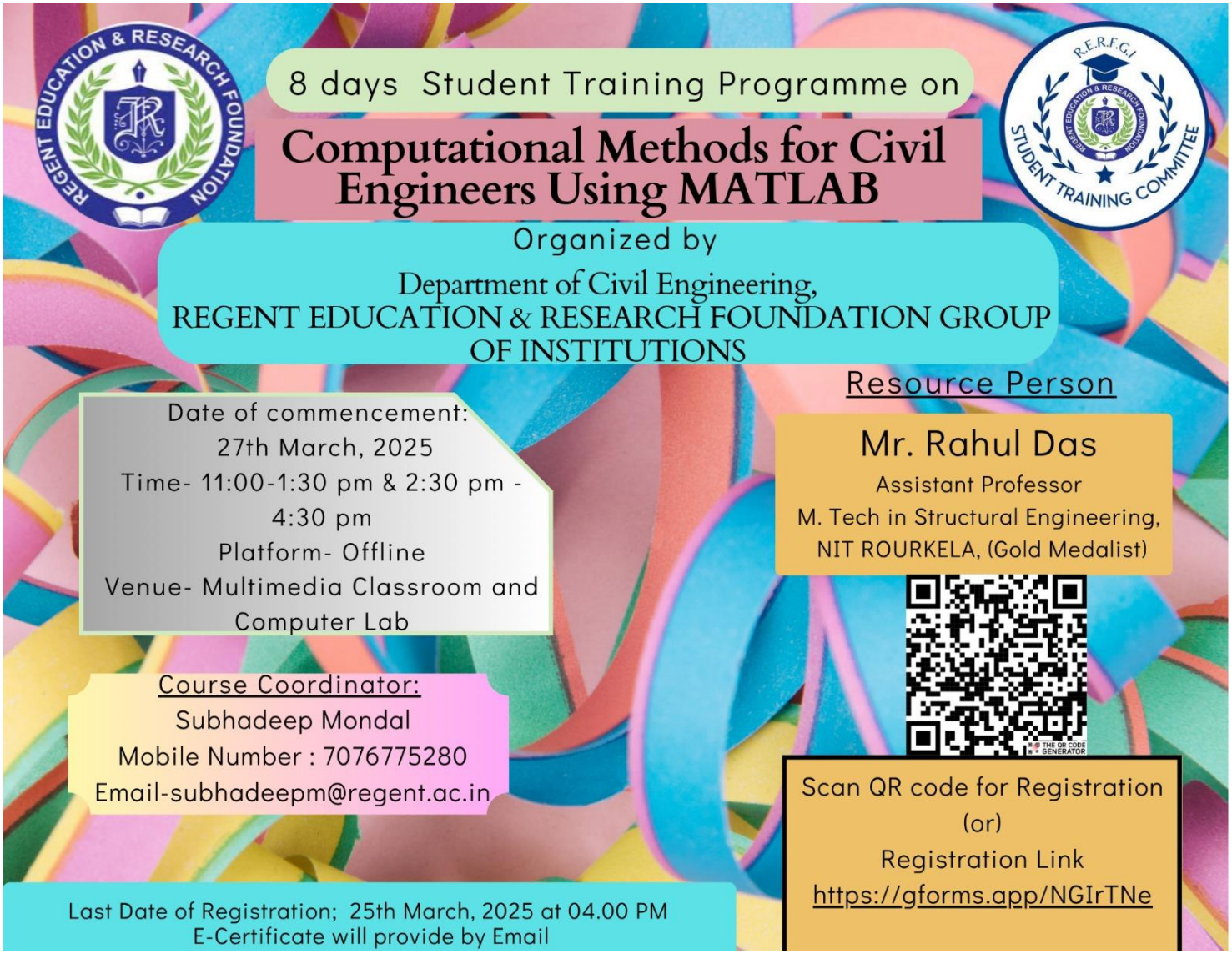
CO6:ExecuteEddyCurrenttesting.

LessonPlan

Date	Time	TopicCovered	COs Aimed
27.3.2025	10:00 am – 1:00 pm	Introduction to MATLAB, Basic syntax and data types,	CO1
	2:00 pm– 5:00 pm	Variables operators control structures	CO2
28.3.2025	10:00 am – 1:00 pm	Writing scripts and functions, Loops,	CO3
	2:00 pm– 5:00 pm	Conditional statements, debugging, Data visualization and plotting	CO3
29.3.2025	10:00 am – 1:00 pm	Importing and manipulating data,	CO4
	2:00 pm– 5:00 pm	Statistical analysis and data visualization, Plotting and charting	CO4
5.4.2025	10:00 am – 1:00 pm	Advanced data structures (e.g., cell arrays, structures),Object-oriented programming File input/output and data import/export	CO5
8.4.2025	10:00 am – 1:00 pm	Applications and Case Studies, Signal processing and filtering,	CO6
	2:00 pm– 5:00 pm	Image processing and analysis Real-world applications and case studies	CO6

11.4.2025	2:00 pm– 5:00 pm	ExecuteEddyCurrenttesting	CO6
12.4.2025	10:00 am – 1:00 pm	Applications in Civil Engineering **Structural Analysis:** Modeling and analysis of simple structural systems like trusses, beams, and 2D frames. Understanding and applying the stiffness matrix method.	CO6
	2:00 pm– 5:00 pm	**Structural Dynamics:** Performing basic dynamic analysis, including time history analysis for single-degree-of-freedom (SDOF) systems.	CO6
16.4.2025	10:00 am – 1:00 pm	Tutorial	
	2:00 pm– 5:00 pm	ExamConduction,CourseExitSurvey	

Flier:


8 days Student Training Programme on
Computational Methods for Civil Engineers Using MATLAB
Organized by
Department of Civil Engineering,
REGENT EDUCATION & RESEARCH FOUNDATION GROUP OF INSTITUTIONS
Resource Person
Mr. Rahul Das
Assistant Professor
M. Tech in Structural Engineering,
NIT ROURKELA, (Gold Medalist)
Date of commencement:
27th March, 2025
Time- 11:00-1:30 pm & 2:30 pm - 4:30 pm
Platform- Offline
Venue- Multimedia Classroom and Computer Lab
Course Coordinator:
Subhadeep Mondal
Mobile Number : 7076775280
Email-subhadeepm@regent.ac.in
Scan QR code for Registration
(or)
Registration Link
https://gforms.app/NGIrTNe
Last Date of Registration; 25th March, 2025 at 04.00 PM
E-Certificate will provide by Email

Ref: RERFGI/CE/2024-25/02 Date: 20/03/2025

NOTICE

We are excited to announce a **FREE** learning course on programming and numeric computing platform **MATLAB**, organized by RERFGI. This is a fantastic opportunity for all aspiring engineers of RERFGI of **Civil Engineering Department** to enhance their skills and knowledge in solving Civil Engineering problems **using MATLAB**.

Course Commencement Date: March 27th, 2025.

This course is designed to provide you with valuable insights into numeric computing platform MATLAB, a fundamental tool in engineering and design to analyze data, matrix manipulation, develop algorithms, and create models. This course is tailored to gain valuable engineering skills that can significantly boost your career prospects in the field of Civil Engineering.

To register for this course, please fill out the Google Form provided at the following link: https://forms.gle/hz4xH3fzN8nkRkKp9. We encourage all interested candidates to register as soon as possible, as seats are limited. For any further queries or additional information, please contact Civil Engineering department of RERFGI. We look forward to your active participation in this course.

Best regards,

Shouvik Sarkar, HOD, CE Dept.

Contact person:

Course Coordinator: Mr. Subhadeep Mondal

Contact No.: 7076775280

Email Id: subhadeepm@regent.ac.in

Instructor Details

Qualification:

- B.Tech in Civil Engineering, VIT UNIVERSITY, Vellore (Gold Medalist)
- M.Tech in Structural Engineering, NIT ROURKELA, (Gold Medalist)

Work Exposure:

- He has experience as an Engineer in Afcons Infrastructure Ltd in East West Metro Project under River Hooghly.
- He has worked as Research Scholar in IIT Delhi, Applied Mechanics Department.
- Has hands on experience in STAAD PRO, ABAQUS, SAP, PRIMAVERA. He has 2 years teaching experience and have served many administrative roles.

REGENT EDUCATION & RESEARCH FOUNDATION
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Event Name: **Computational Methods for Civil Engineers using MATLAB**
Academic Session: **2024-2025 (Even Semester)**
Course Commencement Date: **27th March, 2025**
Organizing Department/Committee: Civil Engineering Department

Attendance Sheet

Sl. No	Student Name	Roll No.	Year	Day 1 (27.03.25)	Day 2 (28.03.25)	Day 3 (29.03.25)	Day 4 (05.04.25)	Day 5 (08.04.25)	Day 6 (11.04.25)	Day 7 (12.04.25)	Day 8 (16.04.25)
1	BADSHA SK	26301323004	2nd	P	P	P	P	P	P	P	P
2	MD ARBAJ ANSARI	26301324008	2nd	P	P	P	P	P	P	P	P
3	SHUBHADIP ROY	26301324009	2nd	P	P	P	P	P	P	P	P
4	SUBHA SANKAR SAMANTA	26301324010	2nd	P	P	P	P	P	P	P	P
5	AMIT KUMAR DAS	26301324012	2nd	P	P	P	P	P	P	P	P
6	SARNAVA GHOSH	26301324013	2nd	P	P	P	P	P	P	P	P
7	SOUMYADEEP SARKAR	26301324016	2nd	P	P	P	P	P	P	P	P
8	AMITAVA DEY	26301324017	2nd	P	P	P	P	P	P	P	P
9	TANMAY BOSE	26301324018	2nd	P	P	P	P	P	P	P	P
10	AMIYA SARKAR	26301324019	2nd	P	P	P	P	P	P	P	P
11	ZESAN RAHAMAN	26301324020	2nd	P	P	P	P	P	P	P	P
12	MD IRFAN SAHAJI	26301324021	2nd	P	P	P	P	P	P	P	P
13	SK MOMTAHINA KHATUN	26301324022	2nd	P	P	P	P	P	P	P	P
14	SUDIP BAITAL	26301324023	2nd	P	P	P	P	P	P	P	P

Campus : **Regent Education & Research Foundation Group of Institutions**
E-mail : rerfkolkata@gmail.com, Website : www.rerf.in

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7th Floor, Kolkata - 700 017
Tel.: 033-3221-3013

HOD CIVIL

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15	ANIKET BHATTACHARJEE	26301324024	2nd	P	P	P	.	P	P	P	P
16	PRITAM PAL	26301324025	2nd	P	.	P	P	P	.	P	P
17	ANUSHKA DAS	26301324026	2nd	.	P	P	P	P	P	.	P
18	DHANANJOY BODHAK	26301324027	2nd	P	P	.	P	.	P	P	P
19	MD AARISH NEHAL	26301323048	2nd	P	.	P	P	P	P	P	.
20	SUPRIYA KHAN	26301324031	2nd	P	P	.	P	.	P	P	P
21	GOPAL JANA	26301323037	3rd	.	P	P	P	P	.	P	P
22	HRIDAY CHAKRABORTY	26301323038	3rd	P	.	P	P	P	P	P	P
23	PRITI DAS	26301323056	3rd	P	.	P	P	P	P	P	.
24	PRIYANKA PAL	26301323057	3rd	P	P	P	P	P	P	P	P
25	RAJ NANDI	26301323058	3rd	.	.	P	P	P	P	P	P
26	RITIK ROUSHAN	26301323060	3rd	P	P	P	.	P	.	P	P
27	RITODEEP DAS	26301323061	3rd	P	P	.	P	P	P	P	.
28	SOURAV MONDAL	26301322001	3rd	.	P	P	P	.	P	P	P
29	SOUMYODIP MANNA	26301322002	3rd	P	P	P	.	P	P	P	.
30	BISWANATH MALAKAR	26301322003	3rd	P	.	P	P	P	.	P	P
31	ARUP SARKAR	26301322005	3rd	P	P	P	.	P	P	P	P
32	ABHIJIT KUNDU	26301323008	3rd	P	P	P	P	P	P	.	P
33	ABHIJIT MUKHERJEE	26301323009	3rd	P	P	P	P	P	P	P	P
34	AJOY DAS	26301323011	3rd	P	.	P	P	.	P	P	P
35	ARPITA MAITY	26301323024	3rd	P	P	P	P	P	.	.	P
36	AUTRI DAS	26301323025	3rd	P	P	.	P	P	P	P	P
37	AVIK GHOSH	26301323026	3rd	P	P	P	.	P	P	P	P
38	BABAI MONDAL	26301323028	3rd	P	P	P	P	P	P	P	P
39	ARKA MUKHERJEE	26301322092	4th	P	P	.	P	P	P	P	P
40	SAYANIK SARDAR	26301323072	3rd	P	P	P	P	.	P	P	.
41	SAYANTANI SAHA	26301323073	3rd	.	P	P	.	P	P	P	P
42	SIBJEET DUTTA	26301323076	3rd	P	P	P	P	P	.	P	P
43	SOUMAJIT GHOSAL	26301323077	3rd	P	.	.	P	P	P	P	P
44	SOVAN CHATTERJEE	26301323079	3rd	P	P	P	P	P	P	.	P

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45	SUBHA DAS	26301323080	3rd								
46	SUBHADIP ROY	26301323081	3rd								
47	SUBHADIP SAU	26301323082	3rd								
48	SUBHAJIT KARMAKAR	26301323083	3rd								
49	SUBHAJIT PATRA	26301323084	3rd								
50	SUBHRA SAMANTA	26301323087	3rd								
51	SUBHRAJIT BHOWMIK	26301323088	3rd								
52	SUDIP SAHA	26301323089	3rd								
53	SWAGATO DAS	26301323092	3rd								
54	SWARUP DAS	26301323093	3rd								
55	TATHAGATA KOLEY	26301323094	3rd								
56	TEASHA BISWAS	26301323095	3rd								
57	TUSHAR MAITY	26301323099	3rd								
58	AKASH CHAKRABORTY	26301323103	3rd								
59	AVIK DHARA	26301322071	4th								
60	Sayan Mondal	26301321040	4th								
61	ALIP MONDAL	26301322020	4th								
62	PUSHKAR SAHA	26301322021	4th								
63	SUMAN NANDI	26301322024	4th								
64	NARAYAN KHANRA	26301322025	4th								
65	ABUL KALAM	26301322026	4th								
66	SAMAPRIYA KARMAKAR	26301322027	4th								
67	BIDHAN CHANDRA MAHATO	26301322030	4th								
68	SOUVIK GHOSH	26301322072	4th								
69	SAYAN KUNDU	26301322073	4th								
70	ARIJIT BISWAS	26301322075	4th								
71	SUJAY MALLICK	26301322076	4th								
72	PRIYANKA DAS	26301322077	4th								
73	DEEP GHOSH	26301322078	4th								
74	SAYAK MONDAL	26301322079	4th								

75	NAYAN KRISHNA DAS	26301322080	4th	P	P	P	P	P	.	P	P
76	DEBDIP DEY	26301322081	4th	P	.	P	.	P	P	P	P
77	SAHIL SAMAL	26301322082	4th	P	.	P	P	P	P	P	P
78	SUVADIP DAS	26301322083	4th	.	P	P	P	P	P	P	P
79	DIWAKAR SINGH	26301322084	4th	P	P	.	P	P	P	P	.
80	DEBDEEP GUHA	26301322085	4th	P	.	P	.	P	P	P	P
81	AVHIRUP PANDA	26301322086	4th	.	P	P	P	P	P	P	P
82	SWARNENDU BANERJEE	26301322087	4th	P	P	.	P	P	.	P	P
83	AKASH SEN	26301322088	4th	P	.	P	.	P	P	P	P
84	ASHISH RAJ SHAW	26301322089	4th	P	P	P	P	P	P	P	P
85	ANJAN PAIRA	26301322090	4th	P	P	.	P	.	P	P	P
86	SATISH DAS	26301322091	4th	P	.	P	P	P	.	P	P
87	ARKA MUKHERJEE	26301322092	4th	P	.	P	.	P	P	P	P
88	ANWARUL HOQUE	26301322093	4th	.	P	P	.	P	P	P	P
89	ENJABUL HOQUE	26301322094	4th	P	P	.	.	P	P	P	P
90	BIKRAM SEN	26301322095	4th	P	P	P	P	P	.	.	P
91	UJJWAL DEY	26301322096	4th	.	.	P	P	P	P	P	P
92	PRAVAKAR MONDAL	26301322098	4th	P	P	.	P	.	P	P	P
93	MILAN MONDAL	26301322099	4th	P	P	P	P	P	P	.	.
94	HRITHIK CHOWDHURY	26301322100	4th	P	.	.	P	P	P	P	P
95	PRATIP KAR	26301322101	4th	P	P	P	.	.	P	P	P
96	ASISH PAL	26301322103	4th	.	.	P	P	P	P	P	P
87	SAKIL ANWAR	26301322104	4th	P	P	.	P	P	.	P	P
88	ANANTA SINHA	26301322106	4th	P	.	P	.	P	P	P	P
89	ANDRENI MUKHERJEE	26301322107	4th	P	P	P	P	P	P	.	.
90	SAYAN MULLICK	26301322108	4th	P	.	P	P	.	P	P	P
91	SURYA KANTA THAKUR	26301322110	4th	P	P	.	P	P	(	P	P
92	PRIYARANJAN BHUNIA	26301322111	4th	.	P	P	P	P	P	P	.
93	ANANYA DAS	26301322114	4th	P	P	P	.	.	P	P	P
94	SUKUMAR PARUA	26301322115	4th	P	.	P	.	P	P	P	P

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95	NABAKUMAR MONDAL	26301322116	4th	P	P	P	P	P	.	P	P
96	DEBASHIS BISWAS	26301322117	4th	P	.	P	.	P	P	P	P
97	SUBHASH MONDAL	26301322118	4th	P	P	P	.	P	P	P	.
98	MOHON SHIT	26301322119	4th	P	.	P	P	.	P	P	P
99	MANISH MAHATO	26301322120	4th	.	P	P	P	P	.	P	P
100	RAHUL MALLICK	26301322121	4th	P	P	.	.	P	P	P	.
101	JAY KUMAR	26301322122	4th	P	.	P	P	.	.	P	P
102	BABAN BISWAS	26301322123	4th	.	P	.	P	P	P	P	P
103	SK AZIMUSHAN	26301322124	4th	P	P	P	.	P	.	P	P
104	ARINDAM JANA	26301322125	4th	.	P	P	P	P	P	P	P
105	KAZI GOLAM GILANI	26301321006	4th	P	.	P	P	.	P	P	P
106	SUBHAJIT GHOSH	26301321007	4th	P	P	.	P	P	P	.	P
107	SAYAN DAS	26301321020	4th	.	P	P	P	P	.	P	P

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Event Name: **Computational Methods for Civil Engineers using MATLAB**
Academic Session: **2024-2025 (Even Semester)**
Course Commencement Date: **27th March, 2025**
Organizing Department/Committee: Civil Engineering Department

Enrollment List

Sl.No	Student Name	Roll No.	Year	Signature
1	BADSHA SK	26301323004	2nd	Badsha SK
2	MD ARBAJ ANSARI	26301324008	2nd	Md. Arbaj Ansari
3	SHUBHADIP ROY	26301324009	2nd	Shubhadip Roy
4	SUBHA SANKAR SAMANTA	26301324010	2nd	Subha Sankar Samanta
5	AMIT KUMAR DAS	26301324012	2nd	Amit Kumar Das
6	SARNAVA GHOSH	26301324013	2nd	Sarnava Ghosh
7	SOUMYADEEP SARKAR	26301324016	2nd	Soumyadeep Sarkar
8	AMITAVA DEY	26301324017	2nd	Amitava Dey
9	TANMAY BOSE	26301324018	2nd	Tanmay Bose
10	AMIYA SARKAR	26301324019	2nd	Amiya Sarkar
11	ZESAN RAHAMAN	26301324020	2nd	Zesan Rahaman
12	MD IRFAN SAHAJI	26301324021	2nd	Md. Irfan Sahaji
13	SK MOMTAHINA KHATUN	26301324022	2nd	SK. Momtahina Khatun
14	SUDIP BAITAL	26301324023	2nd	Sudip Baital
15	ANIKET BHATTACHARJEE	26301324024	2nd	Aniket Bhattacharjee

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7th Floor, Kolkata - 700 017
Tel.: 033-3221-3013

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Sl.No	Student Name	Roll No.	Year	Signature
16	PRITAM PAL	26301324025	2nd	Pritam Pal
17	ANUSHKA DAS	26301324026	2nd	Anushka Das.
18	DHANANJOY BODHAK	26301324027	2nd	Dhananjoy Bodhak.
19	MD AARISH NEHAL	26301323048	2nd	Md. Aarish Nehal
20	SUPRIYA KHAN	26301324031	2nd	Supriya Khan.
21	GOPAL JANA	26301323037	3rd	Gopal Jana
22	HRIDAY CHAKRABORTY	26301323038	3rd	Hriday Chakraborty.
23	PRITI DAS	26301323056	3rd	Priti Das.
24	PRIYANKA PAL	26301323057	3rd	Priyanka Pal
25	RAJ NANDI	26301323058	3rd	Raj Nandi
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29	SOUMYODIP MANNA	26301322002	3rd	Saumyodip Manna
30	BISWANATH MALAKAR	26301322003	3rd	Arup Sarkar
31	ARUP SARKAR	26301322005	3rd	Arup Sarkar
32	ABHIJIT KUNDU	26301323008	3rd	Abhijit Kundu
33	ABHIJIT MUKHERJEE	26301323009	3rd	Abhijit Mukherjee
34	AJOY DAS	26301323011	3rd	Ajoy Das.
35	ARPITA MAITY	26301323024	3rd	Arpita Maity
36	AUTRI DAS	26301323025	3rd	Autri Das
37	AVIK GHOSH	26301323026	3rd	Avik Ghosh
38	BABAI MONDAL	26301323028	3rd	Babai Mondal.

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Sl.No	Student Name	Roll No.	Year	Signature
39	ARKA MUKHERJEE	26301322092	4th	Arka Mukherjee
40	SAYANIK SARDAR	26301323072	3rd	Sayanik Sardar
41	SAYANTANI SAHA	26301323073	3rd	Sayantani Saha.
42	SIBJEET DUTTA	26301323076	3rd	Sibjeet Dutta
43	SOUMAJIT GHOSAL	26301323077	3rd	Soumajit Ghosh
44	SOVAN CHATTERJEE	26301323079	3rd	Sovan Chatterjee
45	SUBHA DAS	26301323080	3rd	Subha Das.
46	SUBHADIP ROY	26301323081	3rd	Subhadip Roy
47	SUBHADIP SAU	26301323082	3rd	Subhadip Sau
48	SUBHAJIT KARMAKAR	26301323083	3rd	Subhajit Karmakar
49	SUBHAJIT PATRA	26301323084	3rd	Subhajit Patra
50	SUBHRA SAMANTA	26301323087	3rd	Subhra Samanta
51	SUBHRAJIT BHOWMIK	26301323088	3rd	Subhrajit Bhowmik
52	SUDIP SAHA	26301323089	3rd	Sudip Saha
53	SWAGATO DAS	26301323092	3rd	S.Das
54	SWARUP DAS	26301323093	3rd	Swarup Das.
55	TATHAGATA KOLEY	26301323094	3rd	Tathagata Koley.
56	TEASHA BISWAS	26301323095	3rd	Teasha Biswas
57	TUSHAR MAITY	26301323099	3rd	Tushar Maity
58	AKASH CHAKRABORTY	26301323103	3rd	Akash Chakraborty
59	AVIK DHARA	26301322071	4th	Avik Dhara
60	Sayan Mondal	26301321040	4th	Sayan Mondal
61	ALIP MONDAL	26301322020	4th	Alip Mondal.
62	PUSHKAR SAHA	26301322021	4th	Pushkar Saha

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Sl.No	Student Name	Roll No.	Year	Signature
63	SUMAN NANDI	26301322024	4th	Suman Nandi
64	NARAYAN KHANRA	26301322025	4th	Narayan Khanra
65	ABUL KALAM	26301322026	4th	Abul Kalam.
66	SAMAPRIYA KARMAKAR	26301322027	4th	Samapriya Karmakar
67	BIDHAN CHANDRA MAHATO	26301322030	4th	Bidhan chandra Mahato.
68	SOUVIK GHOSH	26301322072	4th	Souvik Ghosh
69	SAYAN KUNDU	26301322073	4th	Sayan Kundu
70	ARIJIT BISWAS	26301322075	4th	Arijit Biswas
71	SUJAY MALLICK	26301322076	4th	Sujay Mallick
72	PRIYANKA DAS	26301322077	4th	Priyanka Das.
73	DEEP GHOSH	26301322078	4th	Deep Ghosh
74	SAYAK MONDAL	26301322079	4th	Sayak Mondal
75	NAYAN KRISHNA DAS	26301322080	4th	Nayan krishna Das
76	DEBDIP DEY	26301322081	4th	Debdip Dey
77	SAHIL SAMAL	26301322082	4th	Sahil Samal
78	SUVADIP DAS	26301322083	4th	Suvadip Das
79	DIWAKAR SINGH	26301322084	4th	Diwakar Singh
80	DEBDEEP GUHA	26301322085	4th	Debdeep Guha
81	AVHIRUP PANDA	26301322086	4th	Avhirup Panda
82	SWARNENDU BANERJEE	26301322087	4th	Swarnendu Banerjee
83	AKASH SEN	26301322088	4th	Akash Sen
84	ASHISH RAJ SHAW	26301322089	4th	Ashish Raj Shaw.
85	ANJAN PAIRA	26301322090	4th	Anjan Paira
86	SATISH DAS	26301322091	4th	Satish Das

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Sl.No	Student Name	Roll No.	Year	Signature
87	ARKA MUKHERJEE	26301322092	4th	Arka Mukherjee.
88	ANWARUL HOQUE	26301322093	4th	Anwarul Hoque.
89	ENJABUL HOQUE	26301322094	4th	Enjabul Hoque
90	BIKRAM SEN	26301322095	4th	Bikram Sen.
91	UJJWAL DEY	26301322096	4th	Ujjwal Dey
92	PRAVAKAR MONDAL	26301322098	4th	Pravakar Mondal
93	MILAN MONDAL	26301322099	4th	Milan Mondal
94	HRITHIK CHOWDHURY	26301322100	4th	Hrithik Chowdhury.
95	PRATIP KAR	26301322101	4th	Pratip Kar
96	ASISH PAL	26301322103	4th	Asish Pal
87	SAKIL ANWAR	26301322104	4th	Sakil Anwar
88	ANANTA SINHA	26301322106	4th	Ananta Sinha.
89	ANDRENI MUKHERJEE	26301322107	4th	Andreni Mukherjee
90	SAYAN MULLICK	26301322108	4th	Sayan Mullick
91	SURYA KANTA THAKUR	26301322110	4th	Surya Kanta Thakur
92	PRIYARANJAN BHUNIA	26301322111	4th	Priyaranjan Bhunia.
93	ANANYA DAS	26301322114	4th	Ananya Das.
94	SUKUMAR PARUA	26301322115	4th	Sukumar Parua.
95	NABAKUMAR MONDAL	26301322116	4th	Nabakumar Mondal
96	DEBASHIS BISWAS	26301322117	4th	Debashis Biswas
97	SUBHASH MONDAL	26301322118	4th	Subhash Mondal.
98	MOHON SHIT	26301322119	4th	Mohon Shit
99	MANISH MAHATO	26301322120	4th	Manish Mahato.
100	RAHUL MALLICK	26301322121	4th	Rahul Mallick

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Sl.No	Student Name	Roll No.	Year	Signature
101	JAY KUMAR	26301322122	4th	Jay Kumar
102	BABAN BISWAS	26301322123	4th	Baban Biswas
103	SK AZIMUSHAN	26301322124	4th	Sk. Azimushan
104	ARINDAM JANA	26301322125	4th	Arindam Jana
105	KAZI GOLAM GILANI	26301321006	4th	Kazi Golam Gilani
106	SUBHAJIT GHOSH	26301321007	4th	Subhajit Ghosh.
107	SAYAN DAS	26301321020	4th	Sayan Das

HOD
CIVIL

Class Conduction Photographs

Day1(27/03/2025)





Day2(28/03/2025)





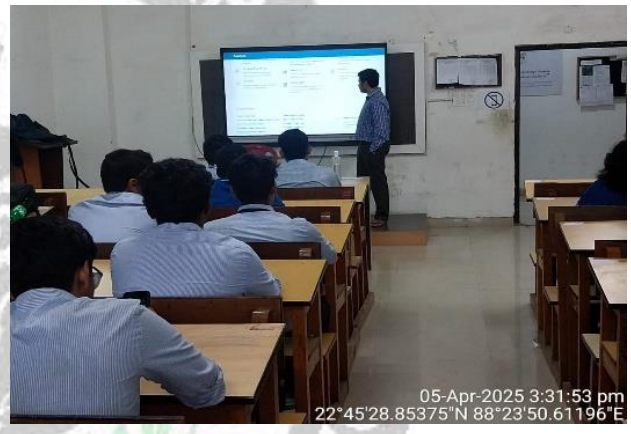
Day3(29/03/2025)





Day4(5/04/2025)





Day5(8/04/2025)





Day6(11/04/2025)



Day7(12/04/2025)





Day8(16/04/2025)





Assessment Instruments

Q. No.	Questions	Marks	CO Aimed
Assignment1			
1		1	
2		1	
3		1	
4		1	
5		1	
6		1	
7		1	
8		1	
9		1	
10		1	
CourseEndAssessment			
1		2	
2		2	
3		2	
4		2	
5		2	
6		2	
7		2	
8		2	
9		2	
10		2	
11		2	
12		2	
13		2	
14		2	
15		2	
16		2	
17		2	
18		2	
19		2	
20		2	

Assignment 1:

<table>
<tr><th>Q.No</th><th>Question</th><th>Marks</th><th>CO Aimed</th></tr>
<tr><td>1.</td><td>
Perform a Mix Design of M50 grade concrete mix in MATLAB as per IS 10262-2009 and IS 456-2000. Calculate the mix proportions of Cement, Fly ash, Sand , 10 mm and 20 mm aggregate , water and admixture for a 5 kg batch of concrete in MATLAB
<table>
<tr><td>Grade</td><td>M50</td></tr>
<tr><td>Type of Cement</td><td>OPC 43 Grade</td></tr>
<tr><td>Type of CA 20 mm</td><td>Crushed angular type</td></tr>
<tr><td>Type of FA</td><td>Natural Sand</td></tr>
<tr><td>Type of mineral Admix</td><td>Fly Ash</td></tr>
<tr><td>NMS</td><td>20 mm</td></tr>
<tr><td>Exposure cond.</td><td>Severe</td></tr>
<tr><td>Workability</td><td>50-100 mm slump</td></tr>
<tr><td>Chemical Admix</td><td>Sika Visocrete 2002 HE (superplasticizer)</td></tr>
</table>
Test data for Materials:
<table>
<tr><th>S.No</th><th>Material</th><th>Specification/Source</th><th>Specific Gravity</th></tr>
<tr><td>1</td><td>Cement</td><td>OPC 43</td><td>3.15</td></tr>
<tr><td>2</td><td>Fly ash</td><td>Pulverized/ Mejja TPP</td><td>2.01</td></tr>
<tr><td>3</td><td>Microsilica</td><td>Elkem</td><td>2.2</td></tr>
<tr><td>4</td><td>Admix.</td><td>Sika Viscocrete 2002 HE</td><td>1.08</td></tr>
<tr><td>5</td><td>CA 20 mm</td><td>Rampurhat</td><td>2.88</td></tr>
<tr><td>6</td><td>CA 10 mm</td><td>Rampurhat</td><td>2.76</td></tr>
<tr><td>7</td><td>Fine aggregate</td><td>Ajoy River</td><td>2.61</td></tr>
<tr><td>8</td><td>Water</td><td></td><td>1.0</td></tr>
</table>
</td><td>20</td><td>CO2</td></tr>
</table>

.

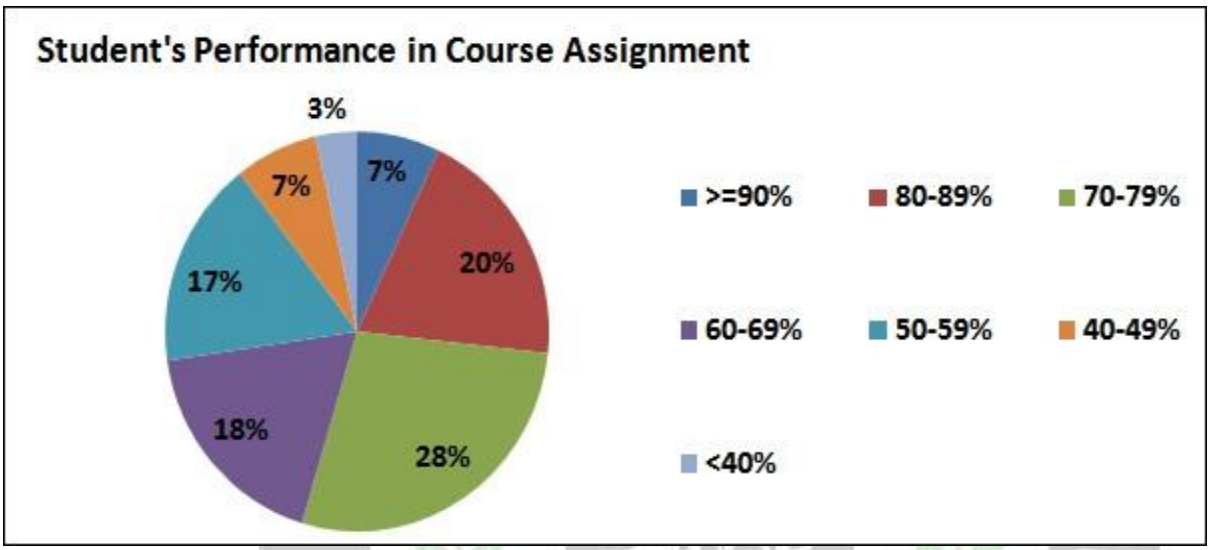
Q.No	Question	Marks	CO Aimed
2	Construct the momentum diagrams, specific energy curve for the given Open channel flow using MATLAB. There is a rectangular channel where discharge is 25 m^3/s, width of the channel is 2.2 m. Determine the following a. Critical depth b. Flow type c. If hydraulic jump happened what will be the conjugate depth (both graphically and numerically) d. Head loss due to hydraulic jump Plot the momentum diagram, specific energy curve. Indicate the conjugate depth and alternate depth in the plot.	**20**	**CO4**

Assignment 2:

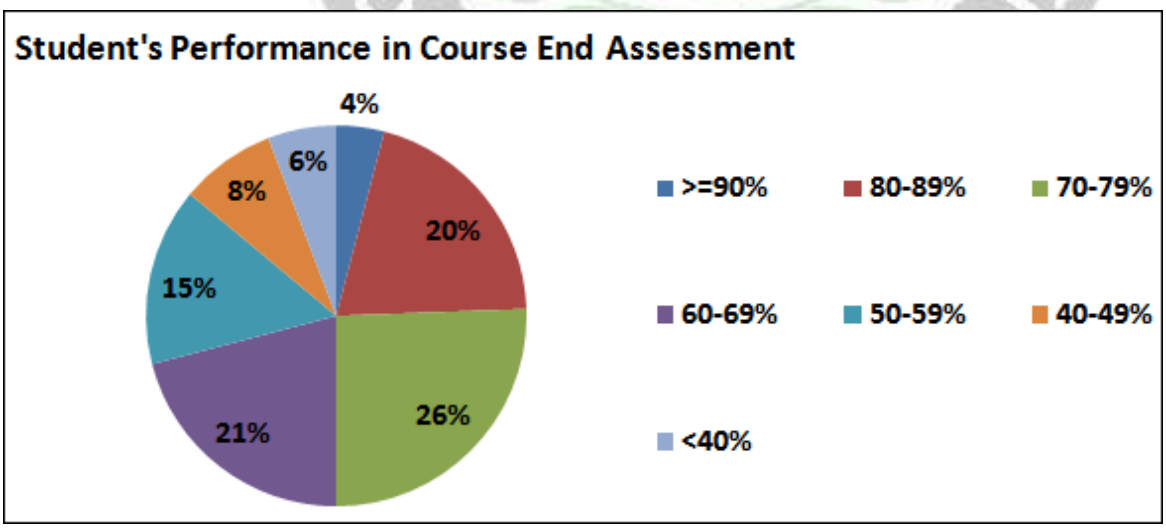
Q.No	Question	Marks	CO Aimed
1	A simply supported concrete beam of an office building constructed in the vicinity of Defence with span length of L=10 m carries point load at the centre of 50kN. Determine the magnitude of support reactions provided with hinge and roller support respectively. Construct the Bending Moment, Shear Force and Deflection Diagram using MATLAB.	**10**	**CO1**

Q.No	Question	Marks	CO Aimed
2	Replace the load with uniformly distributed load of 4 kN/m. Determine the magnitude of support reactions provided with hinge and roller support respectively. Construct the Bending Moment, Shear Force and Deflection Diagram using MATLAB.	10	**CO1**
3	Now, apply dead load in addition to the above concentrated load. Determine the magnitude of support reactions provided with hinge and roller support respectively. Construct the Bending Moment, Shear Force and Deflection Diagram using MATLAB. Take: Unit weight of concrete= 25 kN/m, M40 grade of concrete and size of beam: 500 mm x 800 mm	20	**CO1**

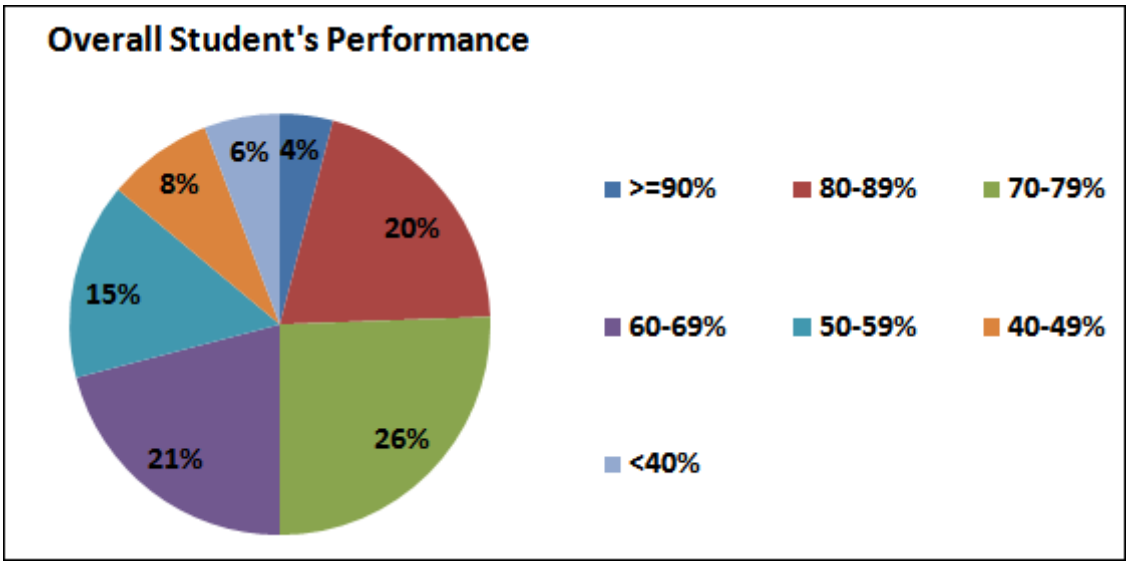
Course Assignment



Course End assessment:



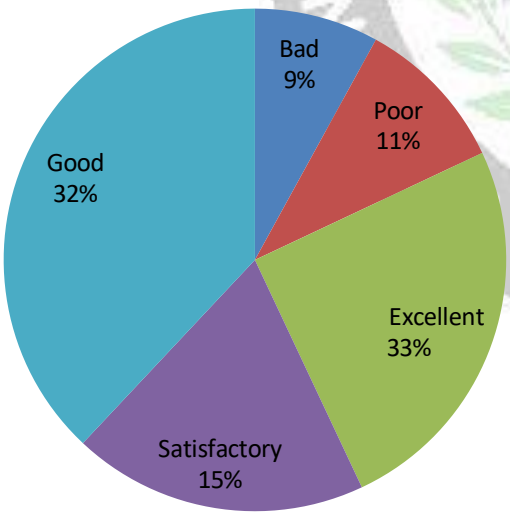
Overall result of student performane



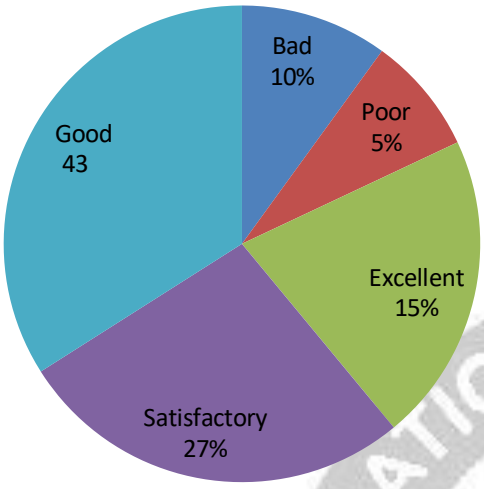
How was the course content relevant to the current industrial/academic need?



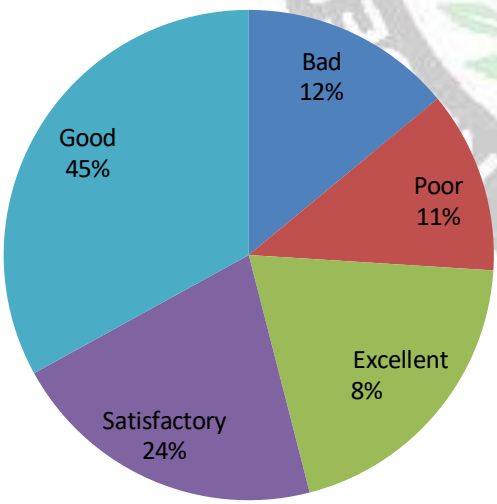
1. Overall Ranking of the Course Instructor.



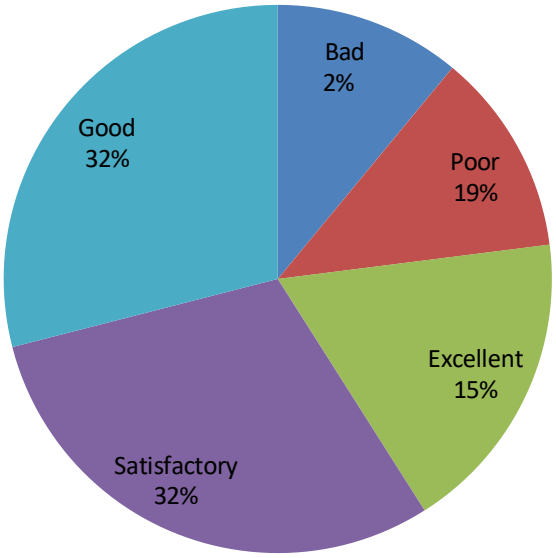
How confident are you in MATLAB?



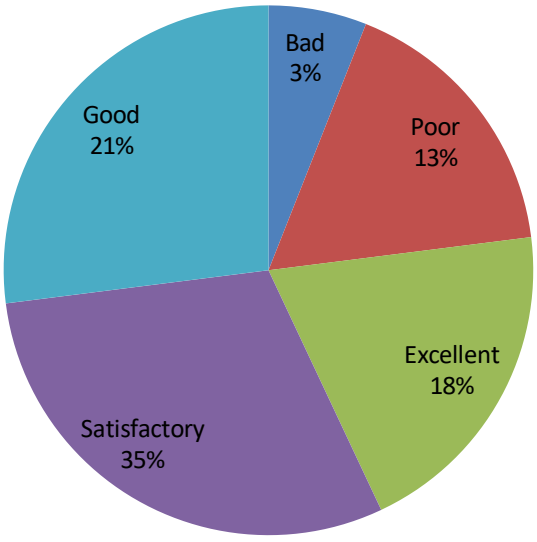
1. How confident are you to do calculation in MAQTLAB ?



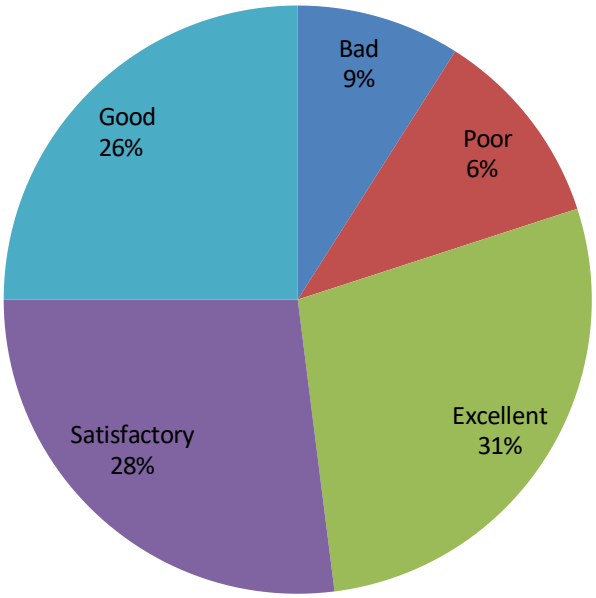
How confident are you to use this software?

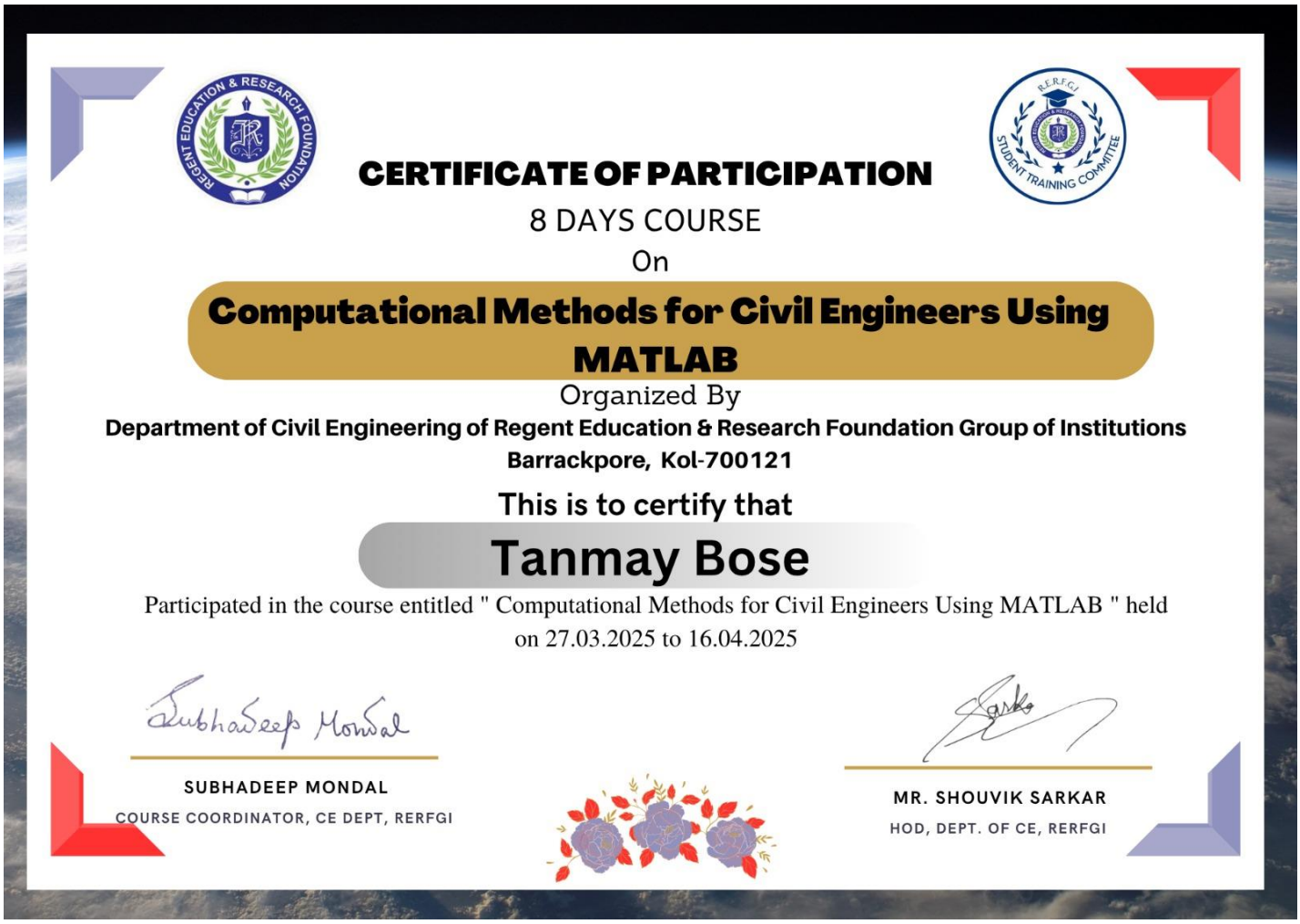


1. AreyousatisfiedwiththeLaboratoryInfrastructure?



Could you relate your theoretical knowledge with MATLAB ?





CERTIFICATE OF PARTICIPATION

8 DAYS COURSE

On

Computational Methods for Civil Engineers Using MATLAB

Organized By

Department of Civil Engineering of Regent Education & Research Foundation Group of Institutions
Barrackpore, Kol-700121

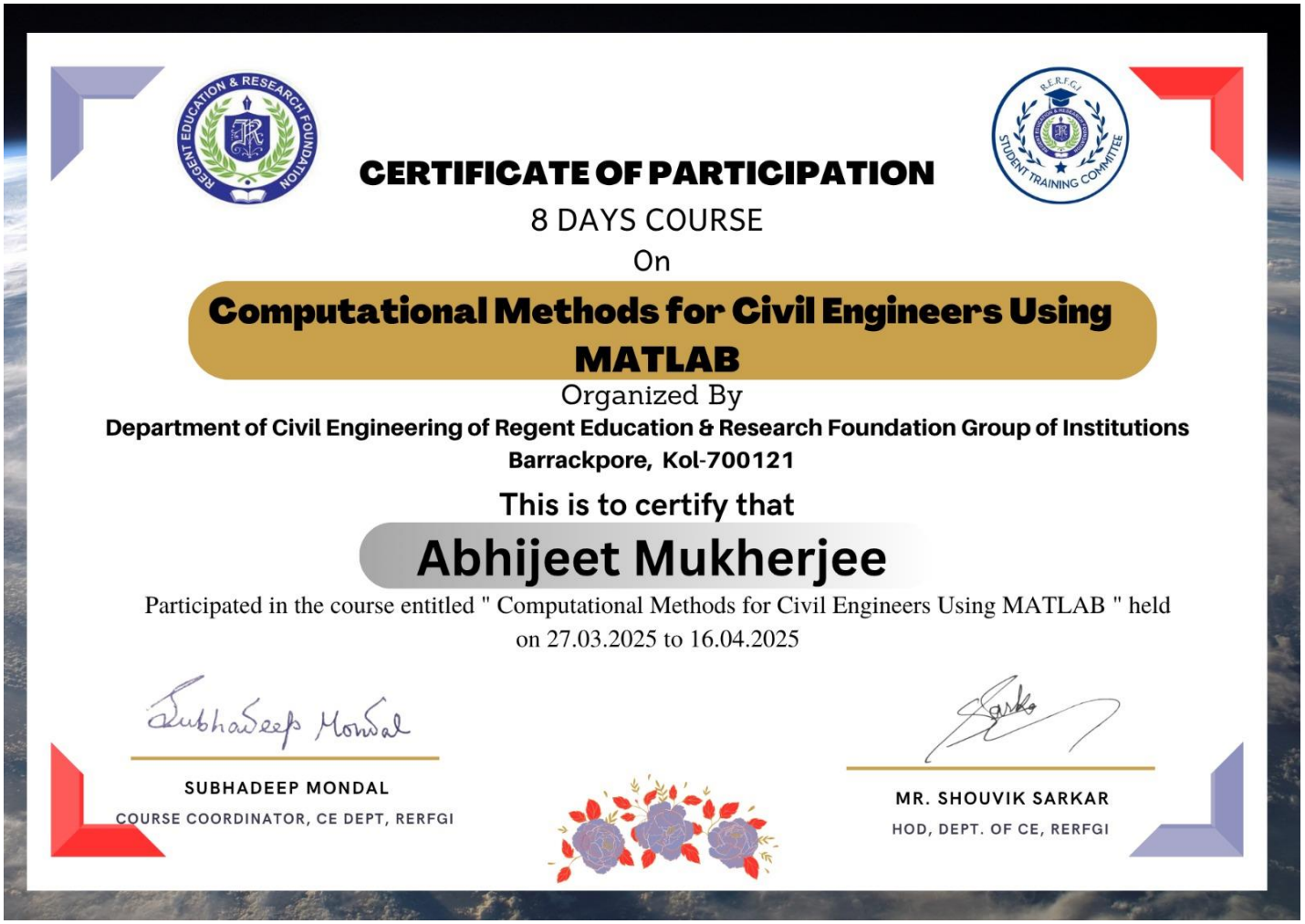
This is to certify that

Tanmay Bose

Participated in the course entitled " Computational Methods for Civil Engineers Using MATLAB " held on 27.03.2025 to 16.04.2025

SUBHADEEP MONDAL
COURSE COORDINATOR, CE DEPT, RERFGI

MR. SHOUVIK SARKAR
HOD, DEPT. OF CE, RERFGI



CERTIFICATE OF PARTICIPATION

8 DAYS COURSE

On

Computational Methods for Civil Engineers Using MATLAB

Organized By

Department of Civil Engineering of Regent Education & Research Foundation Group of Institutions
Barrackpore, Kol-700121

This is to certify that

Abhijeet Mukherjee

Participated in the course entitled " Computational Methods for Civil Engineers Using MATLAB " held on 27.03.2025 to 16.04.2025

SUBHADEEP MONDAL
COURSE COORDINATOR, CE DEPT, RERFGI

MR. SHOUVIK SARKAR
HOD, DEPT. OF CE, RERFGI