

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE GWALIOR(M.P.)



CHEMICAL ENGINEERING DEPARTMENT

Volume 9/Issue1

Jan 2026–March 2026

VISION

To be a leader in Chemical Engineering Education and Research by providing balanced learning and fostering research to Enable the learners to meet the challenges of process Industries and societal needs.

MISSION

- Share state of the art knowledge and facilities and enable optimal utilization of the resource in the region.
- To adopt good pedagogical practices and ethics in order to achieve excellence.
- Develop research culture and create a platform to disseminate research and development

ABOUT THE DEPARTMENT

The Chemical Engineering Department was started in 1996 it offers B.E. and MTech. Courses in Chemical Engineering. Department was started with 30 students in undergraduate but latter on realizing the importance and need for Chemical Engineers, intake capacity raised to 60 in 2013-14. MTech. Course was started in 2013-14 with specialization in Chemical Engineering. The Department started with vision developing itself into academic excellence in Chemical Engineering and associated areas in order to develop competitive professionals and experts having knowledge, skills and attitude to serve the society and nation.

PROGRAMME EDUCATIONAL OBJECTIVES (PEOS)

PEO1: Develop innovative products and services in the field of Chemical Engineering and Allied Engineering disciplines.

PEO2: Make use of Chemical Engineering with modern experimental and computational skills in higher education and research.

Faculty Received Award/Prize

Courses	Name of Faculty	Details of Course
Faculty Received Award/Prize	Anish P. Jacob	<p>Received Meritocracy award for getting a score of 10 in AEI for July - Dec 2025 session.</p> <p>Received Meritocracy award for becoming topper in the NPTEL course on "Clean Coal Technology" during July - Apr 2025.</p> <p>Received Meritocracy award for being among the toppers of NPTEL course on "Food Packaging Technology" in Jul - Dec 2025</p>
	Dr. Shourabh Singh Raghuwanshi	Received Meritocracy award for becoming topper in the NPTEL course on "Chemical Process Utilities" during Jan - April 2025.



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MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR (M.P.), INDIA
Deemed University
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NAAC ACCREDITED WITH A++ GRADE



Ref. No.: MITS_DU/10.03.2025/3

CERTIFICATE

Presented to

Prof. Anish P. Jacob

Department of Chemical Engineering

As

Coordinator of Department of Chemical Engineering
The Administrative Efficiency Index (AEI) for the Department of
Chemical Engineering was 10 out of 10 [Highest in Session
July-December 2025]

MITS DAY
MARCH 10, 2026




DR. R.K. PANDIT
VICE CHANCELLOR



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Ref. No.: MITS_DU/10.03.2025/56

CERTIFICATE

Presented to

Prof. Anish P. Jacob

Department of Chemical Engineering

For

Being the Topper of NPTEL Course "Clean Coal Technology" in Jan-Apr
2025

MITS DAY
MARCH 10, 2026




DR. R.K. PANDIT
VICE CHANCELLOR



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Ref. No.: MITS_DU/10.03.2025/57

CERTIFICATE

Presented to

Prof. Anish P. Jacob

Department of Chemical Engineering

For

Being Among the Toppers of NPTEL Course "Food Packaging
Technology" in Jul-Dec 2025

MITS DAY
MARCH 10, 2026




DR. R.K. PANDIT
VICE CHANCELLOR



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Ref. No.: MITS_DU/10.03.2025/68

CERTIFICATE

Presented to

Dr. Shourabh Singh Raghuwanshi

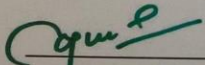
Department of Chemical Engineering

For

Being Among the Toppers of NPTEL Course "Chemical Process Utilities"
in Jan-Apr 2025

MITS DAY
MARCH 10, 2026




DR. R.K. PANDIT
VICE CHANCELLOR



**NPTEL /ATAL/
COURSERA/
INTERNSHALA
COURSE
ATTENDED BY
THEFACULTY**

Courses	NameofFaculty	DetailsofCourse
<p>NPTEL COURSES</p>	<p>Anish P. Jacob</p>	<p>Successfully completed 4 weeks NPTEL course on “Two Phase Flow and Heat Transfer” organized by IIT Roorkee during Jan - Mar 2026.</p>
	<p>Swati Gupta</p>	<p>Got Elite+ Silver 8 week NPTEL course on “ Waste to Energy Conversation” Organized by IIT Roorkee Jan- March 2026.</p> <p>https://drive.google.com/file/d/1Q0io08XgDayiVesVhEh9fPOeAspZ7KVo/view?usp=sharing</p>



NPTEL ONLINE CERTIFICATION

(Funded by the MoE, Govt. of India)



This certificate is awarded to
ANISH P JACOB
for successfully completing the course



Two Phase Flow and Heat Transfer

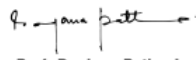
with a consolidated score of **55** %

Online Assignments	20/25	Proctored Exam	34.5/75
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Total number of candidates certified in this course: **6**


Prof. Kaushik Ghosh,
Professor (Chemistry)
Coordinator CEC

Jan-Feb 2026
(4 week course)


Prof. Ranjana Pathania,
Professor (BSBE)
Coordinator (NPTEL)



Indian Institute of Technology Roorkee



Roll No: NPTEL26ME85S371100015

To verify the certificate



No. of credits recommended: 2

**FDP/STC
ATTENDED
(OUTSIDETHE
INSTITUTE)**

Courses	NameofFaculty	DetailsofCourse
<p>FDP/STC ATTENDED BY NPTEL COURSE</p>	<p>Anish P. Jacob</p>	<p>Successfully completed the 6 months AICTE QIP PG Certification Course on “Data Science & Quantum Computing” during June - Dec 2025 from IIITM, Gwalior with a CGPA of 9.0 out of 10.</p> <p>Attended FDP on “Two Phase Flow & Heat Transfer” organized by IIT Roorkee during Jan - Mar 2026.</p> <p>Participated in a one day in-house workshop on “Teaching - Learning Excellence, Assessment and Research” organized by Internal Quality Assurance Cell, MITS-DU on 10th Jan 2026 and secured a relative grade of “AA”.Mar 2026.</p>
	<p>Swati Gupta</p>	<p>Participated in a one day in-house workshop on “Teaching - Learning Excellence, Assessment and Research” organized by Internal Quality Assurance Cell, MITS-DU on 10th Jan 2026 and secured a relative grade of “B”.</p> <p>https://drive.google.com/file/d/1u-TwkNuua0VVtOYXzPhNxtar7Yd39bYD/view?usp=sharing</p>
	<p>Dr. Shourabh Singh Raghjuwanshi</p>	<p>Participated in a one day in-house workshop on “Teaching - Learning Excellence, Assessment and Research” organized by Internal Quality Assurance Cell, MITS-DU on 10th Jan 2026 and secured a relative grade of “B+” Mar 2026.</p>



Atal Bihari Vajpayee
Indian Institute of Information Technology
and Management, Gwalior
(An Institute of National Importance, Ministry of Education, Government of India)



All India Council For Technical Education
अखिल भारतीय तकनीकी शिक्षा परिषद्

Certificate No. 25PG-IIITMG-DSQC/26

CERTIFICATE OF COMPLETION

AICTE QIP PG Certificate Programme

Mr. Anish P Jacob

AICTE ID: 1-2648884778, Assistant Professor, Chemical Engineering working with
Madhav Institute of Technology & Science (Deemed University), Gwalior has successfully completed
Programme in Data Science and Quantum Computing conducted during June, 2025 to December, 2025.

Prof. Joydip Dhar
Programme Coordinator
ABV-IIITM, Gwalior

Prof. Pankaj Srivastava
Centre Coordinator
ABV-IIITM, Gwalior

Prof. Sri Niwas Singh
Director
ABV-IIITM, Gwalior

AICTE QIP PG Certificate Programme

Period: 23 June, 2025 to 20 December, 2025

AICTE ID: 1-2648884778

Name: Mr. Anish P Jacob

Certificate No: 25PG-IITMG-DSQC/26

Course	Credit (T + P)	Grade	Grade Point
Statistics & Machine Learning	4	B	8
Data Science	4	A+	10
Quantum Computing	3	B	8
IRE & Big Data Analytics	3	A+	10
Project	4	A	9

Total Credits: 18

Attendance: 23/23

CGPA: 9.000

Grade	Grade Points	Grade Percentage Range
A+	10	90% – 100%
A	9	80% – 90%
B	8	70% – 80%
C	7	60% – 70%
D	6	50% – 60%
F	0	Below 50%



Seal of Institution

$$\text{Calculation of CGPA: } CGPA = \frac{\sum(\text{Course Credit} \times \text{Grade Point})}{\sum(\text{Total Course Credits})}$$



NPTEL-AICTE Faculty Development Programme

(Funded by the MoE, Govt. of India)



This certificate is awarded to

ANISH P JACOB

for successfully completing the course

Two Phase Flow And Heat Transfer

with a consolidated score of 55 %


Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras



(Jan-Feb 2026)

Roll No: NPTEL26ME855371100015

Duration of NPTEL course : 4 Weeks

The candidate has studied the above course through MOOCs mode, has submitted online assignments and passed proctored exams. This certificate is therefore acceptable for promotions under CAS as per AICTE notifications dated 16th Nov, 2023, similar to other refresher / orientation courses.
F.No. AICTE / RIFD / FDP through MOOCs / 2023



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CERTIFICATE OF PARTICIPATION

This is to certify that

Mr. Anish P. Jacob

(Department: Chemical Engineering) has successfully participated in the one day in-house workshop on "Teaching-Learning Excellence, Assessment, and Research", organized by Internal Quality Assurance Cell, MITS-Deemed University, on 10 January 2026, and has secured a Relative Grade of "AA".

Dr. Manjaree Pandit
Pro-Vice Chancellor

Serial Number: MITS-DU-202601-00149
Date of Issue: 25/4/2026

This certificate is digitally signed and does not require a physical signature. It can be verified using the serial number or by scanning the QR code.

"MITS: Mission to Innovate Technology for Society"



Scan to verify



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NAAC ACCREDITED WITH A++ GRADE



CERTIFICATE OF PARTICIPATION

This is to certify that

Ms. Swati Gupta

(Department: Chemical Engineering) has successfully participated in the one day in-house workshop on "Teaching-Learning Excellence, Assessment, and Research", organized by Internal Quality Assurance Cell, MITS-Deemed University, on 10 January 2026, and has secured a Relative Grade of "B".

Dr. Manjaree Pandit
Pro-Vice Chancellor

Serial Number: MITS-DU-202601-00261
Date of Issue: 25/04/2026

This certificate is digitally signed and does not require a physical signature. It can be verified using the serial number or by scanning the QR code.

"MITS: Mission to Innovate Technology for Society"



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Deemed University
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NAAC ACCREDITED WITH A++ GRADE

CERTIFICATE OF PARTICIPATION

This is to certify that

Dr. Shourabh Singh Raghuwanshi

(Department: Chemical Engineering) has successfully participated in the one day in-house workshop on "Teaching-Learning Excellence, Assessment, and Research", organized by Internal Quality Assurance Cell, MITS-Deemed University, on 10 January 2026, and has secured a Relative Grade of "B+".

Dr. Manjasee Pandit
Pro-Vice Chancellor

Serial Number: MITS-DU-202601-00206
Date of Issue: 25/04/2026

This certificate is digitally signed and does not require a physical signature. It can be verified using the serial number or by scanning the QR code.

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Publications

Events	Name of Faculty	Details of Events
Publications SCI/UGC/SCOPUS with DOI number	Dr. Shourabh Singh Raghuwanshi	<ol style="list-style-type: none">Explication of Butyric Acid Partitioning with Tri-n-octylamine and Natural Oils in a Biphasic System: Equilibria and Design of an Extraction Column, Journal of Chemical & Engineering Data, Jan 2026, American Chemical Society (SCI, Q1) https://orcid.org/0000-0002-2404-4265Integrated CFD analysis, fault diagnosis,

Ms. Shivangi Sharma

and dynamic simulation of methyl acetate synthesis in a solar assisted reactive distillation column, Chemical Engineering Communications, Jan 2026, TnF, SCI, Q2

https://drive.google.com/file/d/1EYpWi2KP_CRUTnsEVj0M1PAGrTLiS3D56/view?usp=sharing

<https://doi.org/10.1080/00986445.2025.2611401>

Reactive distillation: An innovative process intensification technique, AIP

Conf. Proc. 3385, 050001 (2026), SCOPUS

https://drive.google.com/file/d/1HQ4iiOR4Dc-_MVKAfjybNPKLj-vnhYke/view?usp=sharing

<https://doi.org/10.1063/5.0316233>

EDITORIALBOARD

Advisor: Dr.Shourabh Singh Raghuwanshi

