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

CHEMICAL ENGINEERING DEPARTMENT

Volume 6 / Issue 4 Oct. 2023 – Dec. 2023

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)

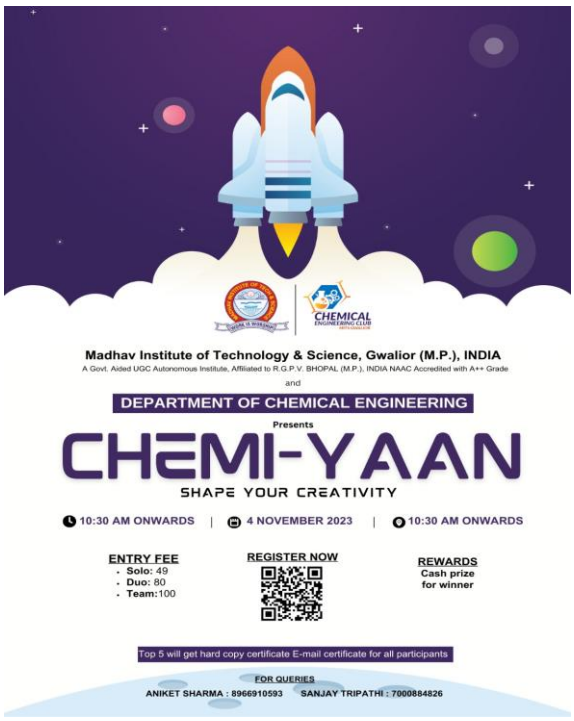
PEO1: Develop innovative products and services in the field of Chemical Engineering and Allied Engineering disciplines.

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

STUDENT CLUB ACTIVITIES ORGANIZED

The technical program (Institute level) named “Chemiyaan” was organized by the Chemical Engineering Club.
A total of eight teams of students were registered for the event and only four teams qualified for the competition. This technical program was divided into three stages-
(1) Poster presentation, which included details of the chemicals, materials used to prepare the model along with the working principle.
(2) Presentation of the model, which included model design, weight compatibility, etc.
(3) Model testing which includes the smoothness of its operation and the distance covered by the model.

Name of Faculty - **Dr. Rakesh Kumar Dubey**



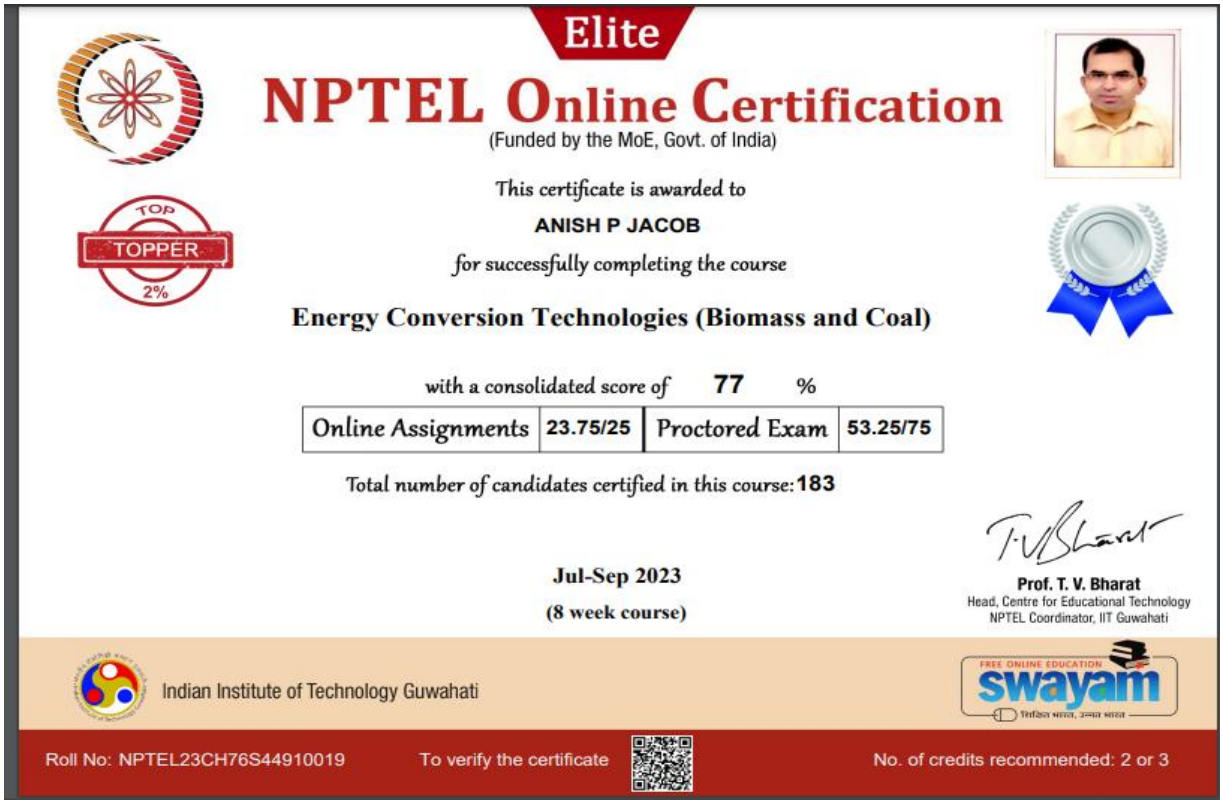
TALK DELIVER OUTSIDE THE INSTITUTE

Delivered Lecture on the occasion of “Veer Baal Diwas" on 26th Dec 2023 in Govt. Higher Secondary School, Kankund, Dewas. M.P.

By : Prof. Anish P. Jacob

NPTEL /ATAL/ COURSERA/ INTERNSHALA COURSE ATTENDED BY THE FACULTY

Coures	Name of Faculty	Details of Course
NPTEL COURSES	Prof. Anish P. Jacob	1. Became 2% Topper with Elite + Silver certificate in "Energy Conversion Technologies (Biomass and Coal)" 8 weeks (July - Sept 2023) NPTEL Course. 2. Got Elite certificate in "Sustainable Energy Technology" 12 weeks (July - Oct 2023) NPTEL Course.
	Dr. Rakesh Kumar Dubey	Got Elite certificate in "Hydrogen Energy: Production, Storage, Transportation and Safety" 12 weeks (July - Oct 2023) NPTEL Course.
	Prof. Shivangi Sharma	Got Elite certificate in "Petroleum Technology" 8 weeks (July - Sep 2023) NPTEL Course.
	Dr. Shourabh Singh Raghuwanshi	1. Got Elite certificate in "Ecology and environment" 12 weeks (July - Oct 2023) NPTEL Course. 2. Got certificate in "Trace and Ultra-Trace Analysis of metals using atomic absorption spectrometry" 12 weeks (July - Sept. 2023) NPTEL Course.



Elite

NPTEL Online Certification

(Funded by the MoE, Govt. of India)

This certificate is awarded to

ANISH P JACOB

for successfully completing the course

Energy Conversion Technologies (Biomass and Coal)

with a consolidated score of 77 %

Online Assignments	23.75/25	Proctored Exam	53.25/75

Total number of candidates certified in this course: 183

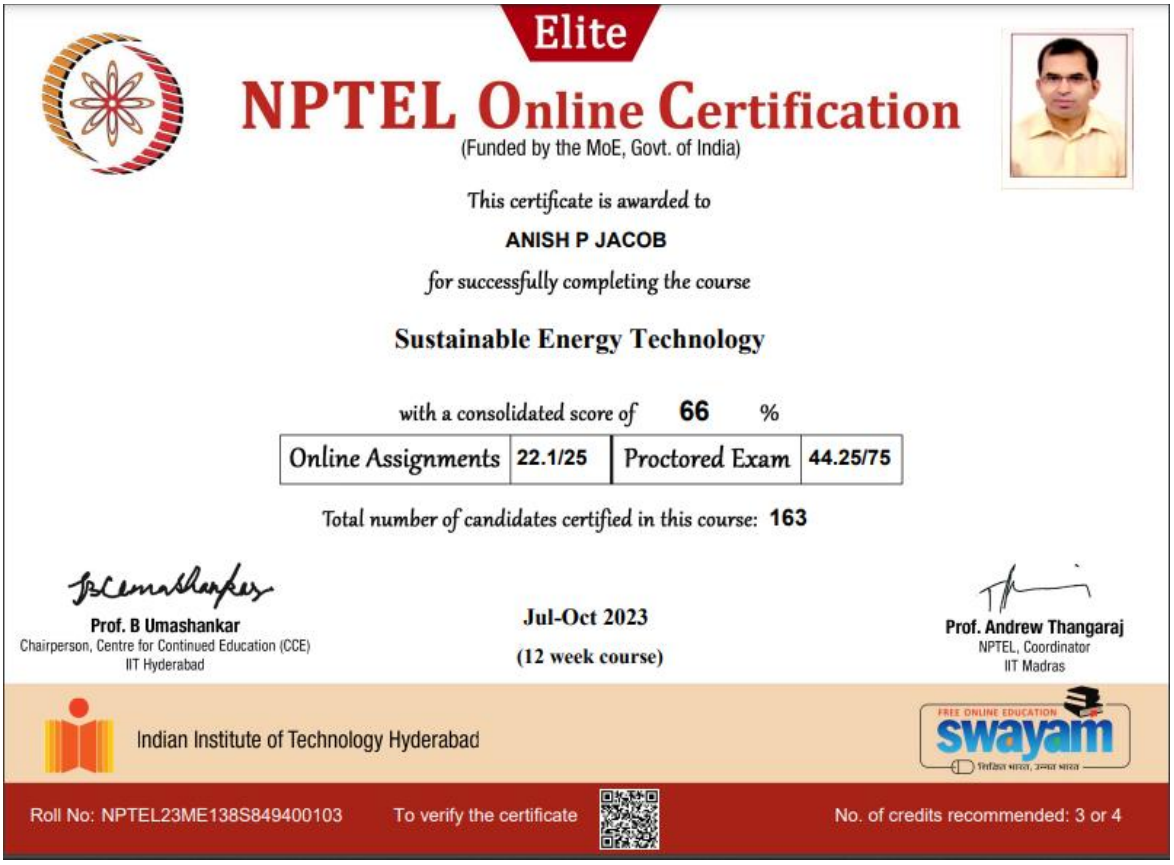
Jul-Sep 2023

(8 week course)

Prof. T. V. Bharat
Head, Centre for Educational Technology
NPTEL Coordinator, IIT Guwahati

Indian Institute of Technology Guwahati

Roll No: NPTEL23CH76S44910019 To verify the certificate No. of credits recommended: 2 or 3



Elite

NPTEL Online Certification

(Funded by the MoE, Govt. of India)

This certificate is awarded to

ANISH P JACOB

for successfully completing the course

Sustainable Energy Technology

with a consolidated score of 66 %

Online Assignments	22.1/25	Proctored Exam	44.25/75

Total number of candidates certified in this course: 163

Prof. B Umashankar
Chairperson, Centre for Continued Education (CCE)
IIT Hyderabad

Jul-Oct 2023

(12 week course)

Prof. Andrew Thangaraj
NPTEL, Coordinator
IIT Madras

Indian Institute of Technology Hyderabad

Roll No: NPTEL23ME138S849400103 To verify the certificate No. of credits recommended: 3 or 4

Elite

NPTEL Online Certification

(Funded by the MoE, Govt. of India)

This certificate is awarded to

DR RAKESH KUMAR DUBEY

for successfully completing the course

Hydrogen Energy: Production, Storage, Transportation and Safety

with a consolidated score of **72** %

Online Assignments	24.69/25	Proctored Exam	47.12/75

Total number of candidates certified in this course: **605**

Jul-Oct 2023

(12 week course)

Prof. Sridhar Iyer
Head CDEEP & NPTEL Coordinator
IIT Bombay

Indian Institute of Technology Bombay

Roll No: NPTEL23CH74S736700596 To verify the certificate No. of credits recommended: 3 or 4

Elite

NPTEL Online Certification

(Funded by the MoE, Govt. of India)

This certificate is awarded to

SHIVANGI SHARMA

for successfully completing the course

Petroleum Technology

with a consolidated score of **70** %

Online Assignments	23.75/25	Proctored Exam	46.5/75

Total number of candidates certified in this course: **102**

Jul-Sep 2023

(8 week course)

Prof. Haimanti Banerji
Coordinator, NPTEL
IIT Kharagpur

Indian Institute of Technology Kharagpur

Roll No: NPTEL23CH64S44880205 To verify the certificate No. of credits recommended: 2 or 3

Elite

NPTEL Online Certification

(Funded by the MoE, Govt. of India)

This certificate is awarded to

SHOURABH SINGH RAGHUWANSHI

for successfully completing the course

Ecology and Environment

with a consolidated score of **60** %

Online Assignments	20.42/25	Proctored Exam	40/75

Total number of candidates certified in this course: **1334**

Devendra Jalihal

Prof. Devendra Jalihal
Chairperson,
Centre for Outreach and Digital Education, IITM

Aug-Oct 2023

(8 week course)

Prof. Andrew Thangaraj
NPTEL, Coordinator
IIT Madras

Indian Institute of Technology Madras

FREE ONLINE EDUCATION swayam शिक्षित भारत, उन्नत भारत

Roll No: NPTEL23GE33S536700618 To verify the certificate No. of credits recommended: 2 or 3

NPTEL Online Certification

(Funded by the MoE, Govt. of India)

This certificate is awarded to

SHOURABH SINGH RAGHUWANSHI

for successfully completing the course

Trace and Ultra-Trace Analysis of Metals Using Atomic Absorption Spectrometry

with a consolidated score of **51** %

Online Assignments	19.29/25	Proctored Exam	31.89/75

Total number of candidates certified in this course: **19**

Prof. G. L. Sivakumar Babu
Chairman, Center for Continuing Education
IISc Bangalore

Jul-Sep 2023

(8 week course)

Prof. L. Umanand
NPTEL Coordinator
IISc Bangalore

Indian Institute of Science Bangalore

FREE ONLINE EDUCATION swayam शिक्षित भारत, उन्नत भारत

Roll No: NPTEL23CH62S44880265 To verify the certificate No. of credits recommended: 2 or 3

FDP/STC ATTENDED (OUTSIDE THE INSTITUTE)

Coures	Name of Faculty	Details of Course
FDP/STC ATTENDED BY NPTEL COURSE	Prof. Anish P. Jacob	1. Completed FDP Course on "Energy Conversion Technologies (Biomass and Coal)" with a consolidated score of 77%. **2.** Completed FDP Course on "Sustainable Energy Technology" with a consolidated score of 66%.
	Dr. Rakesh kumar Dubey	Completed FDP Course on "Hydrogen Energy: Production, Storage,Transportation and Safety" with a consolidated score of 72%.
	Prof Shivangi Sharma	Completed FDP Course on "Petroleum Technology" with Elite and consolidated score of 70%.
	Dr. Shourabh Singh Raghuwanshi	Completed FDP Course on "Trace and Ultra-Trace Analysis of metals using atomic absorption spectrometry"

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

Energy Conversion Technologies (Biomass and Coal)

with a consolidated score of **77** %

Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras

(Jul-Sep 2023)

Roll No: NPTEL23CH76S44910019

Duration of NPTEL course : 8 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 24th July 2018, similar to other refresher / orientation courses.
F.No. AICTE / RIFD / FDP through MOOCs / 2017-18

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

Sustainable Energy Technology

with a consolidated score of **66** %

Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras

(Jul-Oct 2023)

Roll No: NPTEL23ME138S849400103

Duration of NPTEL course : 12 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 24th July 2018, similar to other refresher / orientation courses.
F.No. AICTE / RIFD / FDP through MOOCs / 2017-18

NPTEL-AICTE
Faculty Development Programme

(Funded by the MoE, Govt. of India)

This certificate is awarded to

DR RAKESH KUMAR DUBEY

for successfully completing the course

Hydrogen Energy: Production, Storage, Transportation and Safety

with a consolidated score of 72 %

Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras

(Jul-Oct 2023)

Roll No: NPTEL23CH74S736700596

Duration of NPTEL course : 12 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 24th July 2018, similar to other refresher / orientation courses.
F.No. AICTE / RIFD / FDP through MOOCs / 2017-18

NPTEL-AICTE
Faculty Development Programme

(Funded by the MoE, Govt. of India)

This certificate is awarded to

SHIVANGI SHARMA

for successfully completing the course

Petroleum Technology

with a consolidated score of 70 %

Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras

(Jul-Sep 2023)

Roll No: NPTEL23CH64S44880205

Duration of NPTEL course : 8 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 24th July 2018, similar to other refresher / orientation courses.
F.No. AICTE / RIFD / FDP through MOOCs / 2017-18

NPTEL-AICTE
Faculty Development Programme

(Funded by the MoE, Govt. of India)

This certificate is awarded to

SHOURABH SINGH RAGHUWANSHI

for successfully completing the course

Trace and Ultra-Trace Analysis of Metals Using Atomic Absorption Spectrometry

with a consolidated score of **51** %

Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras

(Jul-Sep 2023)

Roll No: NPTEL23CH62S44880265

Duration of NPTEL course : 8 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 24th July 2018, similar to other refresher / orientation courses.
F.No. AICTE / RIFD / FDP through MOOCs / 2017-18

PUBLICATIONS SCI/UGC/SCOPUS WITH DOI NUMBER

Prof Shivangi Sharma & Dr. Shourabh Singh Raghuwanshi

-

Scopus Material Today: Proceedings, “Vehicle Exhaust Emissions: From Peril to Power”, https://doi.org/10.1016/j.matpr.2023.10.055

Scopus Material Today: Proceedings, “Reactive extraction system: A study on recovery of it aconic acid using different natural oils”, https://doi.org/10.1016/j.matpr.2023.09.054

INNOVATION INTRODUCE

ONLINE FEEDBACK USING MOODLE

The constraints of pen and paper method of receiving feedbacks are many, which render the whole process meaningless. The main constraints in this method are- cost of printing which increases with the increase in number of questions. Moreover, the students lose interest in filling those never-ending sheets of paper, and the sheets from the booklets also. In such scenario, the data obtained, from the feedback are not complete and are unreliable. In addition to that, this data can't be analyzed deeply, without investing tremendous amount of resources.

In such a scenario, this year, the student feedback about different Faculty member and courses has been obtained using an online platform, MOODLE. Use of MOODLE for obtaining feedback has resulted in overwhelming participation from students. Moreover, the completeness of data is also guaranteed. The length of feedback questionnaire can be increased without any problem. In addition to that, the data obtained can be analyzed in multitude ways, very easily.

INTRODUCTION OF NPTEL COURSES UNDER SWAYAM

During the last few years, the awareness among engineering students about media has increased exponentially. The inclination among present day students is towards learning from online platforms, where they can learn at their own pace in social their own time, at a place of their choice. SWAYAM is an initiative whose motive is to exploit this tendency of students for online learning.

The lectures of the courses are available on YouTube platform, where a student can watch them and learn. These courses also include assignments given by Instructors assigned to these courses. These assignments are submitted using Google Classroom, which facilitates transparency and continuity in the evaluation of students. Moreover, a student receives prompt results.

EDITORIAL BOARD