



**Terra-Green**  
SOLUTION FOR ENVIRONMENT, ENERGY, FIRE & SAFETY

# OSTP-2021

**(Online Start-up Training Program: An Internship)**



Projects & Environment

Organized by: Terra-Green Technologies Pvt. Ltd., in  
association with Projects & Environment

15/09/2021 to 30/10/2021



## CERTIFICATE

— of Completion —

**ABHISHEK GANGULY**



*from*

**HERITAGE INSTITUTE OF TECHNOLOGY**

Successfully completed Online Industrial Internship Program on the subject of  
**INDUSTRIAL AND URBAN WASTEWATER MANAGEMENT: STP, ETP AND RO**

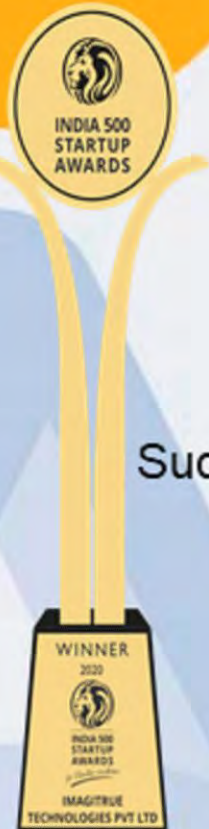
with **A** grade.

- A=90% and above
- B=80-89
- C=70-79%
- D=60-69%

**Certificate ID: TG/2021/12621**

**Issuing Date: 30/10/2021**

**Director**  
**Terra-Green Technologies Pvt. Ltd**



INDIA 500  
STARTUP  
AWARDS

WINNER  
2020



INDIA 500  
STARTUP  
AWARDS

IMAGITRUE  
TECHNOLOGIES PVT LTD





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**(Online Start-up Training Program: An Internship)**



Projects & Environment

Organized by: Terra-Green Technologies Pvt. Ltd., in  
association with Projects & Environment

15/09/2021 to 30/10/2021

## CERTIFICATE

— of Completion —

**ADITI SARKAR**

*from*

**HERITAGE INSTITUTE OF TECHNOLOGY, KOLKATA**

Successfully completed Online Industrial Internship Program on the subject of

**INDUSTRIAL AND URBAN WASTEWATER MANAGEMENT: STP, ETP AND RO**

with **A** grade.

A=90% and above

B=80-89

C=70-79%

D=60-69%

**Certificate ID: TG/2021/12660**

**Issuing Date: 30/10/2021**



**Director**  
**Terra-Green Technologies Pvt. Ltd**





**Terra-Green**  
SOLUTION FOR ENVIRONMENT, ENERGY, FIRE & SAFETY

# OSTP-2021

**(Online Start-up Training Program: An Internship)**



Projects & Environment

Organized by: Terra-Green Technologies Pvt. Ltd., in  
association with Projects & Environment

15/09/2021 to 30/10/2021

## CERTIFICATE

— of Completion —

**AGNIV CHAKRABORTY**

*from*

**HERITAGE INSTITUTE OF TECHNOLOGY, KOLKATA**

Successfully completed Online Industrial Internship Program on the subject of

**INDUSTRIAL ENVIRONMENTAL POLLUTION MANAGEMENT**

with **A** grade.

A=90% and above

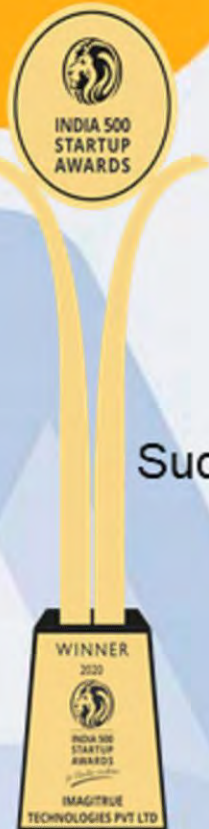
B=80-89

C=70-79%

D=60-69%

**Certificate ID: TG/2021/13013**

**Issuing Date: 30/10/2021**



**Director**  
**Terra-Green Technologies Pvt. Ltd**



## इंडियन ऑयल कॉर्पोरेशन लिमिटेड

रिफाइनरीज प्रभाग: गुवाहाटी रिफाइनरी  
नूनमाटी, गुवाहाटी - ७८१०२० (असम)

### Indian Oil Corporation Limited

Refineries Division : Guwahati Refinery  
Noonmati, Guwahati - 781020, Assam.  
Fax : 0361-2657250, 2657251  
EPABX : 0361-2597000  
Website : www.iocl.com  
E-mail id : GR@indianoil.in



IndianOil



Guwahati Refinery

## रिफाइनरीज प्रभाग Refineries Division

### To Whom It May Concern

This is to certify that **AINDRILA BOSE** (2021001123) a student of 6<sup>th</sup> Semester in B. Tech. in CHEMICAL ENGINEERING from HERITAGE INSTITUTE OF TECHNOLOGY has undertaken virtual internship at Indian Oil Corporation Limited, Guwahati Refinery from 16-07-2021 to 16-09-2021.

During the internship, he/ she has been found to be punctual and diligent. After completion of the internship, he/ she has submitted an Industrial Training/Project Report at Indian Oil Corporation Limited, Guwahati Refinery.

We wish him/ her all success in life.

Project Name: OIL MOVEMENT AND STORAGE SYSTEMS AT IOCL GUWAHATI REFINERY

Project Guide: Mr. Bapureddy Borra, SPNM

Date: 17-09-2021

Place: Guwahati Refinery

*Debanuja Borah*

Ms. Debanuja Borah

Manager (L & D)

देबानुजा बोरा/ Debanuja Borah

प्रबंधक (एल स्वं डी)

Manager (L&D)

आई ओ सी एल, गुवाहाटी रिफाइनरी, नूनमाटी, गुवाहाटी-२०  
IOCL, Guwahati Refinery, Noonmati, Guwahati-20





**Terra-Green**  
SOLUTION FOR ENVIRONMENT, ENERGY, FIRE & SAFETY

# OSTP-2021

**(Online Start-up Training Program: An Internship)**



Projects & Environment

Organized by: Terra-Green Technologies Pvt. Ltd., in  
association with Projects & Environment

15/09/2021 to 30/10/2021



## CERTIFICATE

— of Completion —

**AKASH MUKHERJEE**



*from*

**HERITAGE INSTITUTE OF TECHNOLOGY**

Successfully completed Online Industrial Internship Program on the subject of

**INDUSTRIAL ENVIRONMENTAL POLLUTION MANAGEMENT**

with **A** grade.

A=90% and above

B=80-89

C=70-79%

D=60-69%

**Certificate ID: TG/2021/13041**

**Issuing Date: 30/10/2021**

**Director**

**Terra-Green Technologies Pvt. Ltd**



WINNER

2020

INDIA 500

STARTUP

AWARDS

IMAGITRUE

TECHNOLOGIES PVT LTD





Terra-Green  
SOLUTION FOR ENVIRONMENT, ENERGY, FIRE & SAFETY

# OSTP-2021

(Online Start-up Training Program: An Internship)



Projects & Environment

Organized by: Terra-Green Technologies Pvt. Ltd., in  
association with Projects & Environment

15/09/2021 to 30/10/2021



## CERTIFICATE

— of Completion —

**ANINDITA DEBNATH**



*from*

**HERITAGE INSTITUTE OF TECHNOLOGY**

Successfully completed Online Industrial Internship Program on the subject of

**INDUSTRIAL AND URBAN WASTEWATER MANAGEMENT: STP, ETP AND RO**

with **A** grade.

- A=90% and above
- B=80-89
- C=70-79%
- D=60-69%

**Certificate ID: TG/2021/12649**

**Issuing Date: 30/10/2021**

**Director**  
**Terra-Green Technologies Pvt. Ltd**







**Terra-Green**  
SOLUTION FOR ENVIRONMENT, ENERGY, FIRE & SAFETY

# OSTP-2021

**(Online Start-up Training Program: An Internship)**



Projects & Environment

Organized by: Terra-Green Technologies Pvt. Ltd., in  
association with Projects & Environment

15/09/2021 to 30/10/2021



## CERTIFICATE

— of Completion —

**ANISH CHOUDHURY**



*from*

**HERITAGE INSTITUTE OF TECHNOLOGY**

Successfully completed Online Industrial Internship Program on the subject of

**INDUSTRIAL ENVIRONMENTAL POLLUTION MANAGEMENT**

with **B** grade.

A=90% and above

B=80-89

C=70-79%

D=60-69%

**Certificate ID: TG/2021/13121**

**Issuing Date: 30/10/2021**

**Director**

**Terra-Green Technologies Pvt. Ltd**







**Terra-Green**  
SOLUTION FOR ENVIRONMENT, ENERGY, FIRE & SAFETY

# OSTP-2021

**(Online Start-up Training Program: An Internship)**



Projects & Environment

Organized by: Terra-Green Technologies Pvt. Ltd., in  
association with Projects & Environment

15/09/2021 to 30/10/2021



## CERTIFICATE

— of Completion —

**BRISHTI DAS**



*from*

**HERITAGE INSTITUTE OF TECHNOLOGY**

Successfully completed Online Industrial Internship Program on the subject of

**INDUSTRIAL ENVIRONMENTAL POLLUTION MANAGEMENT**

with **B** grade.

A=90% and above

B=80-89

C=70-79%

D=60-69%

**Certificate ID: TG/2021/13022**

**Issuing Date: 30/10/2021**

**Director**

**Terra-Green Technologies Pvt. Ltd**







**Terra-Green**  
SOLUTION FOR ENVIRONMENT, ENERGY, FIRE & SAFETY

# OSTP-2021

**(Online Start-up Training Program: An Internship)**



Projects & Environment

Organized by: Terra-Green Technologies Pvt. Ltd., in  
association with Projects & Environment

15/09/2021 to 30/10/2021

## CERTIFICATE

— of Completion —

**DEEKSHA PRATAP**

*from*

**HERITAGE INSTITUTE OF TECHNOLOGY**

Successfully completed Online Industrial Internship Program on the subject of

**DOMESTIC & AGRICULTURE SOLAR ENERGY: COMMISSIONING TO INSTALLATION**

with **A** grade.

A=90% and above

B=80-89

C=70-79%

D=60-69%

**Certificate ID: TG/2021/12547**

**Issuing Date: 30/10/2021**



**Director**  
**Terra-Green Technologies Pvt. Ltd**





**Terra-Green**  
SOLUTION FOR ENVIRONMENT, ENERGY, FIRE & SAFETY

# OSTP-2021

**(Online Start-up Training Program: An Internship)**



Projects & Environment

Organized by: Terra-Green Technologies Pvt. Ltd., in  
association with Projects & Environment

15/09/2021 to 30/10/2021

## CERTIFICATE

— of Completion —

**HRITIKA GHOSH**

*from*

**HERITAGE INSTITUTE OF TECHNOLOGY, KOLKATA**

Successfully completed Online Industrial Internship Program on the subject of  
**INDUSTRIAL AND URBAN WASTEWATER MANAGEMENT: STP, ETP AND RO**

with **A** grade.

A=90% and above

B=80-89

C=70-79%

D=60-69%

**Certificate ID: TG/2021/12579**

**Issuing Date: 30/10/2021**



**Director**  
**Terra-Green Technologies Pvt. Ltd**





**Terra-Green**  
SOLUTION FOR ENVIRONMENT, ENERGY, FIRE & SAFETY

# OSTP-2021

**(Online Start-up Training Program: An Internship)**



Projects & Environment

Organized by: Terra-Green Technologies Pvt. Ltd., in  
association with Projects & Environment

15/09/2021 to 30/10/2021

## CERTIFICATE

— of Completion —

**OMPRAKASH BERA**

*from*

**HERITAGE INSTITUTE OF TECHNOLOGY**

Successfully completed Online Industrial Internship Program on the subject of

**INDUSTRIAL ENVIRONMENTAL POLLUTION MANAGEMENT**

with **A** grade.

A=90% and above

B=80-89

C=70-79%

D=60-69%

**Certificate ID: TG/2021/13104**

**Issuing Date: 30/10/2021**



**Director**  
**Terra-Green Technologies Pvt. Ltd**





**Terra-Green**  
SOLUTION FOR ENVIRONMENT, ENERGY, FIRE & SAFETY

# OSTP-2021

**(Online Start-up Training Program: An Internship)**



Projects & Environment

Organized by: Terra-Green Technologies Pvt. Ltd., in  
association with Projects & Environment

15/09/2021 to 30/10/2021



## CERTIFICATE

— of Completion —

**PRATTAY CHAKRABORTY**

*from*

**HERITAGE INSTITUTE OF TECHNOLOGY**



Successfully completed Online Industrial Internship Program on the subject of  
**INDUSTRIAL ENVIRONMENTAL POLLUTION MANAGEMENT**

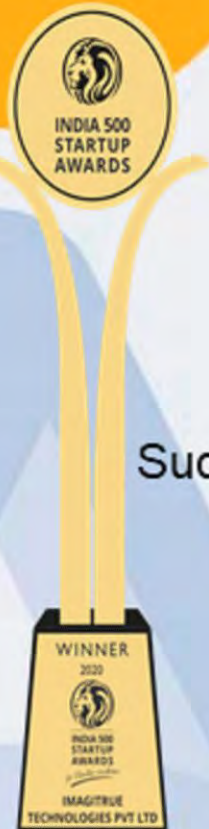
with **A** grade.

- A=90% and above
- B=80-89
- C=70-79%
- D=60-69%

**Certificate ID: TG/2021/13106**

**Issuing Date: 30/10/2021**

**Director**  
**Terra-Green Technologies Pvt. Ltd**



INDIA 500  
STARTUP  
AWARDS

WINNER  
2020



INDIA 500  
STARTUP  
AWARDS

IMAGITRUE  
TECHNOLOGIES PVT LTD





**Terra-Green**  
SOLUTION FOR ENVIRONMENT, ENERGY, FIRE & SAFETY

# OSTP-2021

**(Online Start-up Training Program: An Internship)**



Projects & Environment

Organized by: Terra-Green Technologies Pvt. Ltd., in  
association with Projects & Environment

15/09/2021 to 30/10/2021



## CERTIFICATE

— of Completion —

**PREETAM PATRA**



*from*

**HERITAGE INSTITUTE OF TECHNOLOGY, KOLKATA**

Successfully completed Online Industrial Internship Program on the subject of

**INDUSTRIAL ENVIRONMENTAL POLLUTION MANAGEMENT**

with **B** grade.

A=90% and above

B=80-89

C=70-79%

D=60-69%

**Certificate ID: TG/2021/13107**

**Issuing Date: 30/10/2021**

**Director**

**Terra-Green Technologies Pvt. Ltd**







**Terra-Green**  
SOLUTION FOR ENVIRONMENT, ENERGY, FIRE & SAFETY

# OSTP-2021

**(Online Start-up Training Program: An Internship)**



Projects & Environment

Organized by: Terra-Green Technologies Pvt. Ltd., in  
association with Projects & Environment

15/09/2021 to 30/10/2021

## CERTIFICATE

— of Completion —

**RITESH KUMAR PANDEY**

*from*

**HERITAGE INSTITUTE OF TECHNOLOGY KOLKATA**

Successfully completed Online Industrial Internship Program on the subject of

**INDUSTRIAL ENVIRONMENTAL POLLUTION MANAGEMENT**

with **A** grade.

A=90% and above

B=80-89

C=70-79%

D=60-69%

**Certificate ID: TG/2021/13049**

**Issuing Date: 30/10/2021**



**Director**  
**Terra-Green Technologies Pvt. Ltd**





**Terra-Green**  
SOLUTION FOR ENVIRONMENT, ENERGY, FIRE & SAFETY

# OSTP-2021

**(Online Start-up Training Program: An Internship)**



Projects & Environment

Organized by: Terra-Green Technologies Pvt. Ltd., in  
association with Projects & Environment

15/09/2021 to 30/10/2021

## CERTIFICATE

— of Completion —

**SANYA SHARMA**

*from*

**HERITAGE INSTITUTE OF TECHNOLOGY, KOLKATA**

Successfully completed Online Industrial Internship Program on the subject of

**DOMESTIC & AGRICULTURE SOLAR ENERGY: COMMISSIONING TO INSTALLATION**

with **A** grade.

A=90% and above

B=80-89

C=70-79%

D=60-69%

**Certificate ID: TG/2021/12542**

**Issuing Date: 30/10/2021**



**Director**  
**Terra-Green Technologies Pvt. Ltd**





**Terra-Green**  
SOLUTION FOR ENVIRONMENT, ENERGY, FIRE & SAFETY

# OSTP-2021

**(Online Start-up Training Program: An Internship)**



Projects & Environment

Organized by: Terra-Green Technologies Pvt. Ltd., in  
association with Projects & Environment

15/09/2021 to 30/10/2021

## CERTIFICATE

— of Completion —

**SAPTASYA MUKHOPADHYAY**

*from*

**HERITAGE INSTITUTE OF TECHNOLOGY**

Successfully completed Online Industrial Internship Program on the subject of

**INDUSTRIAL ENVIRONMENTAL POLLUTION MANAGEMENT**

with **A** grade.

A=90% and above

B=80-89

C=70-79%

D=60-69%

**Certificate ID: TG/2021/13059**

**Issuing Date: 30/10/2021**



**Director**  
**Terra-Green Technologies Pvt. Ltd**





**Terra-Green**  
SOLUTION FOR ENVIRONMENT, ENERGY, FIRE & SAFETY

# OSTP-2021

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Projects & Environment

Organized by: Terra-Green Technologies Pvt. Ltd., in  
association with Projects & Environment

15/09/2021 to 30/10/2021



## CERTIFICATE

— of Completion —

**SARITPRIYA MONDAL**



*from*

**HERITAGE INSTITUTE OF TECHNOLOGY**

Successfully completed Online Industrial Internship Program on the subject of

**INDUSTRIAL ENVIRONMENTAL POLLUTION MANAGEMENT**

with **A** grade.

A=90% and above

B=80-89

C=70-79%

D=60-69%

**Certificate ID: TG/2021/13110**

**Issuing Date: 30/10/2021**

**Director**

**Terra-Green Technologies Pvt. Ltd**



WINNER

2020



INDIA 500

STARTUP

AWARDS

IMAGITRUE

TECHNOLOGIES PVT LTD





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**(Online Start-up Training Program: An Internship)**



Projects & Environment

Organized by: Terra-Green Technologies Pvt. Ltd., in  
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15/09/2021 to 30/10/2021



## CERTIFICATE

— of Completion —

**SAYAM BHATTACHARYYA**



*from*

**HERITAGE INSTITUTE OF TECHNOLOGY**

Successfully completed Online Industrial Internship Program on the subject of  
**INDUSTRIAL AND URBAN WASTEWATER MANAGEMENT: STP, ETP AND RO**

with **A** grade.

A=90% and above

B=80-89

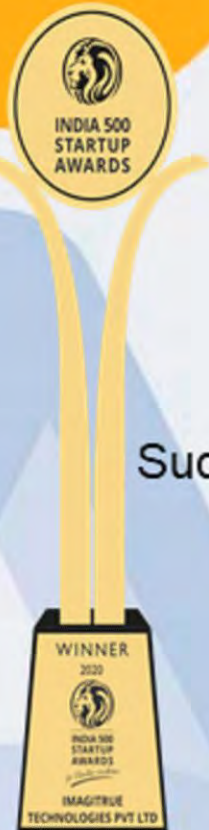
C=70-79%

D=60-69%

**Certificate ID: TG/2021/12659**

**Issuing Date: 30/10/2021**

**Director**  
**Terra-Green Technologies Pvt. Ltd**



INDIA 500  
STARTUP  
AWARDS

WINNER  
2020



INDIA 500  
STARTUP  
AWARDS

IMAGITRUE  
TECHNOLOGIES PVT LTD





**Terra-Green**  
SOLUTION FOR ENVIRONMENT, ENERGY, FIRE & SAFETY

# OSTP-2021

**(Online Start-up Training Program: An Internship)**



Projects & Environment

Organized by: Terra-Green Technologies Pvt. Ltd., in  
association with Projects & Environment

15/09/2021 to 30/10/2021

## CERTIFICATE

— of Completion —

**SAYAN RAY**

*from*

**SAYAN RAY**

Successfully completed Online Industrial Internship Program on the subject of

**INDUSTRIAL ENVIRONMENTAL POLLUTION MANAGEMENT**

with **B** grade.

A=90% and above

B=80-89

C=70-79%

D=60-69%

**Certificate ID: TG/2021/13051**

**Issuing Date: 30/10/2021**



**Director**  
**Terra-Green Technologies Pvt. Ltd**





**Terra-Green**  
SOLUTION FOR ENVIRONMENT, ENERGY, FIRE & SAFETY

# OSTP-2021

**(Online Start-up Training Program: An Internship)**



Projects & Environment

Organized by: Terra-Green Technologies Pvt. Ltd., in  
association with Projects & Environment

15/09/2021 to 30/10/2021

## CERTIFICATE

— of Completion —

**SHOHINEE DAS**

*from*

**HERITAGE INSTITUTE OF TECHNOLOGY**

Successfully completed Online Industrial Internship Program on the subject of

**INDUSTRIAL ENVIRONMENTAL POLLUTION MANAGEMENT**

with **A** grade.

A=90% and above

B=80-89

C=70-79%

D=60-69%

**Certificate ID: TG/2021/12977**

**Issuing Date: 30/10/2021**



**Director**  
**Terra-Green Technologies Pvt. Ltd**





**Terra-Green**  
SOLUTION FOR ENVIRONMENT, ENERGY, FIRE & SAFETY

# OSTP-2021

**(Online Start-up Training Program: An Internship)**



Projects & Environment

Organized by: Terra-Green Technologies Pvt. Ltd., in  
association with Projects & Environment

15/09/2021 to 30/10/2021



## CERTIFICATE

— of Completion —

**SOUMIK MONDAL**



*from*

**HERITAGE INSTITUTE OF TECHNOLOGY**

Successfully completed Online Industrial Internship Program on the subject of

**INDUSTRIAL ENVIRONMENTAL POLLUTION MANAGEMENT**

with **A** grade.

A=90% and above

B=80-89

C=70-79%

D=60-69%

**Certificate ID: TG/2021/13064**

**Issuing Date: 30/10/2021**

**Director**

**Terra-Green Technologies Pvt. Ltd**



WINNER

2020



INDIA 500

STARTUP

AWARDS

IMAGITRUE

TECHNOLOGIES PVT LTD





**Terra-Green**  
SOLUTION FOR ENVIRONMENT, ENERGY, FIRE & SAFETY

# OSTP-2021

**(Online Start-up Training Program: An Internship)**



Projects & Environment

Organized by: Terra-Green Technologies Pvt. Ltd., in  
association with Projects & Environment

15/09/2021 to 30/10/2021

## CERTIFICATE

— of Completion —

**SUMANA KARMAKAR**

*from*

**HERITAGE INSTITUTE OF TECHNOLOGY**

Successfully completed Online Industrial Internship Program on the subject of

**INDUSTRIAL ENVIRONMENTAL POLLUTION MANAGEMENT**

with **A** grade.

A=90% and above

B=80-89

C=70-79%

D=60-69%

**Certificate ID: TG/2021/13068**

**Issuing Date: 30/10/2021**



*[Signature]*

**Director**  
**Terra-Green Technologies Pvt. Ltd**





**Terra-Green**  
SOLUTION FOR ENVIRONMENT, ENERGY, FIRE & SAFETY

# OSTP-2021

**(Online Start-up Training Program: An Internship)**



Projects & Environment

Organized by: Terra-Green Technologies Pvt. Ltd., in  
association with Projects & Environment

15/09/2021 to 30/10/2021

## CERTIFICATE

— of Completion —

**SURYADEEP GANGOPADHYAY**

*from*

**HERITAGE INSTITUTE OF TECHNOLOGY, KOLKATA**

Successfully completed Online Industrial Internship Program on the subject of

**INDUSTRIAL ENVIRONMENTAL POLLUTION MANAGEMENT**

with **A** grade.

A=90% and above

B=80-89

C=70-79%

D=60-69%

**Certificate ID: TG/2021/13069**

**Issuing Date: 30/10/2021**



*[Signature]*

**Director**  
**Terra-Green Technologies Pvt. Ltd**





**Terra-Green**  
SOLUTION FOR ENVIRONMENT, ENERGY, FIRE & SAFETY

# OSTP-2021

**(Online Start-up Training Program: An Internship)**



Projects & Environment

Organized by: Terra-Green Technologies Pvt. Ltd., in  
association with Projects & Environment

15/09/2021 to 30/10/2021



## CERTIFICATE

— of Completion —

**SUVAM CHATTERJEE**



*from*

**HERITAGE INSTITUTE OF TECHNOLOGY KOLKATA**

Successfully completed Online Industrial Internship Program on the subject of

**INDUSTRIAL ENVIRONMENTAL POLLUTION MANAGEMENT**

with **A** grade.

A=90% and above

B=80-89

C=70-79%

D=60-69%

**Certificate ID: TG/2021/12980**

**Issuing Date: 30/10/2021**

**Director**

**Terra-Green Technologies Pvt. Ltd**



WINNER

2020



INDIA 500

STARTUP

AWARDS

IMAGITRUE

TECHNOLOGIES PVT LTD





# Online Internship Program on Petroleum and Petrochemical Industries



Jointly Organized by

Faculty of Engineering & Technology, Jadavpur University, Kolkata

And

Vivekananda Institute of Environment & Management, Kolkata

**20 August 2021--29 September 2021**

*Certificate of Completion*

***This certificate is hereby awarded to Soumyajit Kundu of Heritage Institute of Technology who has successfully completed the Internship Program following all necessary criteria with A+ Grade.***

Certificate id: SUMMER2021001  
Date of issue: 26 October 2021

**Ashanendu Mandal**  
Former Chief General Manager,  
ONGC & Course Coordinator

**Dr Arunkanti Biswas**  
Secretary, VIEM &  
Jt. Course Director

**Dr Bhaskar Gupta**  
Professor, ETCE, JU &  
Course Director

## Grading System:

85% and above	A+
70%--84%	A
60%-- 69%	B

**Course Coverage: Lecture: 39 hours+ Evaluation/ Flipped Class: 06 hours = Total 45 hours**  
**Broad Topics Covered: Upstream Oil & Gas Production in Off-shore, Exploitation of Deepwater Oilfields, Enhanced Oil Recovery of Mature Oil fields, Safety in Off-shore Oil fields, Overview of IOC Haldia Refinery, Reforming, Delayed Coking & Hydro-processing in IOC Refineries, Technology of LNG business today, Optimum Refinery configuration: Oil to Chemicals, Organic Chloride issues, Waste to Wealth; Prospects of CBM, Catalytic gasification of coal, Supply chain Mgt of Petroleum products, Circularity & valorization of Chemicals & Fuels, Technology applications in Indian Industry for Sustainable Growth; Industry 4.0: Applications in Refineries, IOT techniques for solving Global Problems, Sustainability & Energy Canvas**





# Online Internship Program on Petroleum and Petrochemical Industries



*Jointly Organized by*

Faculty of Engineering & Technology, Jadavpur University, Kolkata

*And*

Vivekananda Institute of Environment & Management, Kolkata

**20 August 2021--29 September 2021**

*Certificate of Completion*

***This certificate is hereby awarded to Avoy Kumar of Heritage Institute of Technology who has successfully completed the Internship Program following all necessary criteria with A+ Grade.***

Certificate id: SUMMER2021002  
Date of issue: 26 October 2021

**Ashanendu Mandal**  
Former Chief General Manager,  
ONGC & Course Coordinator

**Dr Arunkanti Biswas**  
Secretary, VIEM &  
Jt. Course Director

**Dr Bhaskar Gupta**  
Professor, ETCE, JU &  
Course Director

## Grading System:

85% and above	A+
70%--84%	A
60%-- 69%	B

**Course Coverage: Lecture: 39 hours+ Evaluation/ Flipped Class: 06 hours = Total 45 hours**  
**Broad Topics Covered: Upstream Oil & Gas Production in Off-shore, Exploitation of Deepwater Oilfields, Enhanced Oil Recovery of Mature Oil fields, Safety in Off-shore Oil fields, Overview of IOC Haldia Refinery, Reforming, Delayed Coking & Hydro-processing in IOC Refineries, Technology of LNG business today, Optimum Refinery configuration: Oil to Chemicals, Organic Chloride issues, Waste to Wealth; Prospects of CBM, Catalytic gasification of coal, Supply chain Mgt of Petroleum products, Circularity & valorization of Chemicals & Fuels, Technology applications in Indian Industry for Sustainable Growth; Industry 4.0: Applications in Refineries, IOT techniques for solving Global Problems, Sustainability & Energy Canvas**





# Online Internship Program on Petroleum and Petrochemical Industries



*Jointly Organized by*

Faculty of Engineering & Technology, Jadavpur University, Kolkata

*And*

Vivekananda Institute of Environment & Management, Kolkata

**20 August 2021--29 September 2021**

*Certificate of Completion*

***This certificate is hereby awarded to Sagnik Saha of Heritage Institute of Technology who has successfully completed the Internship Program following all necessary criteria with A+ Grade.***

Certificate id: SUMMER2021003  
Date of issue: 26 October 2021

**Ashanendu Mandal**  
Former Chief General Manager,  
ONGC & Course Coordinator

**Dr Arunkanti Biswas**  
Secretary, VIEM &  
Jt. Course Director

**Dr Bhaskar Gupta**  
Professor, ETCE, JU &  
Course Director

## Grading System:

85% and above	A+
70%--84%	A
60%-- 69%	B

**Course Coverage: Lecture: 39 hours+ Evaluation/ Flipped Class: 06 hours = Total 45 hours**  
**Broad Topics Covered: Upstream Oil & Gas Production in Off-shore, Exploitation of Deepwater Oilfields, Enhanced Oil Recovery of Mature Oil fields, Safety in Off-shore Oil fields, Overview of IOC Haldia Refinery, Reforming, Delayed Coking & Hydro-processing in IOC Refineries, Technology of LNG business today, Optimum Refinery configuration: Oil to Chemicals, Organic Chloride issues, Waste to Wealth; Prospects of CBM, Catalytic gasification of coal, Supply chain Mgt of Petroleum products, Circularity & valorization of Chemicals & Fuels, Technology applications in Indian Industry for Sustainable Growth; Industry 4.0: Applications in Refineries, IOT techniques for solving Global Problems, Sustainability & Energy Canvas**





# Online Internship Program on Petroleum and Petrochemical Industries



*Jointly Organized by*

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*And*

Vivekananda Institute of Environment & Management, Kolkata

**20 August 2021--29 September 2021**

*Certificate of Completion*

***This certificate is hereby awarded to Arkadip Dutta of Heritage Institute of Technology who has successfully completed the Internship Program following all necessary criteria with A Grade.***

Certificate id: SUMMER2021004  
Date of issue: 26 October 2021

**Ashanendu Mandal**  
Former Chief General Manager,  
ONGC & Course Coordinator

**Dr Arunkanti Biswas**  
Secretary, VIEM &  
Jt. Course Director

**Dr Bhaskar Gupta**  
Professor, ETCE, JU &  
Course Director

## Grading System:

85% and above	A+
70%--84%	A
60%-- 69%	B

Course Coverage: Lecture: 39 hours+ Evaluation/ Flipped Class: 06 hours = Total 45 hours

Broad Topics Covered: Upstream Oil & Gas Production in Off-shore, Exploitation of Deepwater Oilfields, Enhanced Oil Recovery of Mature Oil fields, Safety in Off-shore Oil fields, Overview of IOC Haldia Refinery, Reforming, Delayed Coking & Hydro-processing in IOC Refineries, Technology of LNG business today, Optimum Refinery configuration: Oil to Chemicals, Organic Chloride issues, Waste to Wealth; Prospects of CBM, Catalytic gasification of coal, Supply chain Mgt of Petroleum products, Circularity & valorization of Chemicals & Fuels, Technology applications in Indian Industry for Sustainable Growth; Industry 4.0: Applications in Refineries, IOT techniques for solving Global Problems, Sustainability & Energy Canvas





# Online Internship Program on Petroleum and Petrochemical Industries



*Jointly Organized by*

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*And*

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**20 August 2021--29 September 2021**

*Certificate of Completion*

***This certificate is hereby awarded to Saurav Kumar of Heritage Institute of Technology who has successfully completed the Internship Program following all necessary criteria with A Grade.***

Certificate id: SUMMER2021005  
Date of issue: 26 October 2021

**Ashanendu Mandal**  
Former Chief General Manager,  
ONGC & Course Coordinator

**Dr Arunkanti Biswas**  
Secretary, VIEM &  
Jt. Course Director

**Dr Bhaskar Gupta**  
Professor, ETCE, JU &  
Course Director

## Grading System:

85% and above	A+
70%--84%	A
60%-- 69%	B

**Course Coverage: Lecture: 39 hours+ Evaluation/ Flipped Class: 06 hours = Total 45 hours**  
**Broad Topics Covered: Upstream Oil & Gas Production in Off-shore, Exploitation of Deepwater Oilfields, Enhanced Oil Recovery of Mature Oil fields, Safety in Off-shore Oil fields, Overview of IOC Haldia Refinery, Reforming, Delayed Coking & Hydro-processing in IOC Refineries, Technology of LNG business today, Optimum Refinery configuration: Oil to Chemicals, Organic Chloride issues, Waste to Wealth; Prospects of CBM, Catalytic gasification of coal, Supply chain Mgt of Petroleum products, Circularity & valorization of Chemicals & Fuels, Technology applications in Indian Industry for Sustainable Growth; Industry 4.0: Applications in Refineries, IOT techniques for solving Global Problems, Sustainability & Energy Canvas**





# Online Internship Program on Petroleum and Petrochemical Industries



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**20 August 2021--29 September 2021**

*Certificate of Completion*

***This certificate is hereby awarded to Jyotsana Rani of Heritage Institute of Technology who has successfully completed the Internship Program following all necessary criteria with A Grade.***

Certificate id: SUMMER2021006  
Date of issue: 26 October 2021

**Ashanendu Mandal**  
Former Chief General Manager,  
ONGC & Course Coordinator

**Dr Arunkanti Biswas**  
Secretary, VIEM &  
Jt. Course Director

**Dr Bhaskar Gupta**  
Professor, ETCE, JU &  
Course Director

## Grading System:

85% and above	A+
70%--84%	A
60%-- 69%	B

**Course Coverage: Lecture: 39 hours+ Evaluation/ Flipped Class: 06 hours = Total 45 hours**  
**Broad Topics Covered: Upstream Oil & Gas Production in Off-shore, Exploitation of Deepwater Oilfields, Enhanced Oil Recovery of Mature Oil fields, Safety in Off-shore Oil fields, Overview of IOC Haldia Refinery, Reforming, Delayed Coking & Hydro-processing in IOC Refineries, Technology of LNG business today, Optimum Refinery configuration: Oil to Chemicals, Organic Chloride issues, Waste to Wealth; Prospects of CBM, Catalytic gasification of coal, Supply chain Mgt of Petroleum products, Circularity & valorization of Chemicals & Fuels, Technology applications in Indian Industry for Sustainable Growth; Industry 4.0: Applications in Refineries, IOT techniques for solving Global Problems, Sustainability & Energy Canvas**



# Online Internship Program on Petroleum and Petrochemical Industries



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**20 August 2021--29 September 2021**

*Certificate of Completion*

***This certificate is hereby awarded to Subharanil Ghosh of Heritage Institute of Technology who has successfully completed the Internship Program following all necessary criteria with A Grade.***

Certificate id: SUMMER2021007  
Date of issue: 26 October 2021

**Ashanendu Mandal**  
Former Chief General Manager,  
ONGC & Course Coordinator

**Dr Arunkanti Biswas**  
Secretary, VIEM &  
Jt. Course Director

**Dr Bhaskar Gupta**  
Professor, ETCE, JU &  
Course Director

## Grading System:

85% and above	A+
70%--84%	A
60%-- 69%	B

Course Coverage: Lecture: 39 hours+ Evaluation/ Flipped Class: 06 hours = Total 45 hours

Broad Topics Covered: Upstream Oil & Gas Production in Off-shore, Exploitation of Deepwater Oilfields, Enhanced Oil Recovery of Mature Oil fields, Safety in Off-shore Oil fields, Overview of IOC Haldia Refinery, Reforming, Delayed Coking & Hydro-processing in IOC Refineries, Technology of LNG business today, Optimum Refinery configuration: Oil to Chemicals, Organic Chloride issues, Waste to Wealth; Prospects of CBM, Catalytic gasification of coal, Supply chain Mgt of Petroleum products, Circularity & valorization of Chemicals & Fuels, Technology applications in Indian Industry for Sustainable Growth; Industry 4.0: Applications in Refineries, IOT techniques for solving Global Problems, Sustainability & Energy Canvas





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**20 August 2021--29 September 2021**

*Certificate of Completion*

***This certificate is hereby awarded to Akash Singh of Heritage Institute of Technology who has successfully completed the Internship Program following all necessary criteria with A Grade.***

Certificate id: SUMMER2021008  
Date of issue: 26 October 2021

**Ashanendu Mandal**  
Former Chief General Manager,  
ONGC & Course Coordinator

**Dr Arunkanti Biswas**  
Secretary, VIEM &  
Jt. Course Director

**Dr Bhaskar Gupta**  
Professor, ETCE, JU &  
Course Director

## Grading System:

85% and above	A+
70%--84%	A
60%-- 69%	B

**Course Coverage: Lecture: 39 hours+ Evaluation/ Flipped Class: 06 hours = Total 45 hours**  
**Broad Topics Covered: Upstream Oil & Gas Production in Off-shore, Exploitation of Deepwater Oilfields, Enhanced Oil Recovery of Mature Oil fields, Safety in Off-shore Oil fields, Overview of IOC Haldia Refinery, Reforming, Delayed Coking & Hydro-processing in IOC Refineries, Technology of LNG business today, Optimum Refinery configuration: Oil to Chemicals, Organic Chloride issues, Waste to Wealth; Prospects of CBM, Catalytic gasification of coal, Supply chain Mgt of Petroleum products, Circularity & valorization of Chemicals & Fuels, Technology applications in Indian Industry for Sustainable Growth; Industry 4.0: Applications in Refineries, IOT techniques for solving Global Problems, Sustainability & Energy Canvas**



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**20 August 2021--29 September 2021**

*Certificate of Completion*

***This certificate is hereby awarded to Aniqua Haque of Heritage Institute of Technology who has successfully completed the Internship Program following all necessary criteria with A Grade.***

Certificate id: SUMMER2021009  
Date of issue: 26 October 2021

**Ashanendu Mandal**  
Former Chief General Manager,  
ONGC & Course Coordinator

**Dr Arunkanti Biswas**  
Secretary, VIEM &  
Jt. Course Director

**Dr Bhaskar Gupta**  
Professor, ETCE, JU &  
Course Director

## Grading System:

85% and above	A+
70%--84%	A
60%-- 69%	B

**Course Coverage: Lecture: 39 hours+ Evaluation/ Flipped Class: 06 hours = Total 45 hours**  
**Broad Topics Covered: Upstream Oil & Gas Production in Off-shore, Exploitation of Deepwater Oilfields, Enhanced Oil Recovery of Mature Oil fields, Safety in Off-shore Oil fields, Overview of IOC Haldia Refinery, Reforming, Delayed Coking & Hydro-processing in IOC Refineries, Technology of LNG business today, Optimum Refinery configuration: Oil to Chemicals, Organic Chloride issues, Waste to Wealth; Prospects of CBM, Catalytic gasification of coal, Supply chain Mgt of Petroleum products, Circularity & valorization of Chemicals & Fuels, Technology applications in Indian Industry for Sustainable Growth; Industry 4.0: Applications in Refineries, IOT techniques for solving Global Problems, Sustainability & Energy Canvas**





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**20 August 2021--29 September 2021**

*Certificate of Completion*

***This certificate is hereby awarded to Sathi Saha of Heritage Institute of Technology who has successfully completed the Internship Program following all necessary criteria with A+ Grade.***

Certificate id: SUMMER2021010  
Date of issue: 26 October 2021

**Ashanendu Mandal**  
Former Chief General Manager,  
ONGC & Course Coordinator

**Dr Arunkanti Biswas**  
Secretary, VIEM &  
Jt. Course Director

**Dr Bhaskar Gupta**  
Professor, ETCE, JU &  
Course Director

## Grading System:

85% and above	A+
70%--84%	A
60%-- 69%	B

**Course Coverage: Lecture: 39 hours+ Evaluation/ Flipped Class: 06 hours = Total 45 hours**  
**Broad Topics Covered: Upstream Oil & Gas Production in Off-shore, Exploitation of Deepwater Oilfields, Enhanced Oil Recovery of Mature Oil fields, Safety in Off-shore Oil fields, Overview of IOC Haldia Refinery, Reforming, Delayed Coking & Hydro-processing in IOC Refineries, Technology of LNG business today, Optimum Refinery configuration: Oil to Chemicals, Organic Chloride issues, Waste to Wealth; Prospects of CBM, Catalytic gasification of coal, Supply chain Mgt of Petroleum products, Circularity & valorization of Chemicals & Fuels, Technology applications in Indian Industry for Sustainable Growth; Industry 4.0: Applications in Refineries, IOT techniques for solving Global Problems, Sustainability & Energy Canvas**



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**20 August 2021--29 September 2021**

*Certificate of Completion*

***This certificate is hereby awarded to Ishika Samanta of Heritage Institute of Technology who has successfully completed the Internship Program following all necessary criteria with A+ Grade.***

Certificate id: SUMMER2021011  
Date of issue: 26 October 2021

**Ashanendu Mandal**  
Former Chief General Manager,  
ONGC & Course Coordinator

**Dr Arunkanti Biswas**  
Secretary, VIEM &  
Jt. Course Director

**Dr Bhaskar Gupta**  
Professor, ETCE, JU &  
Course Director

## Grading System:

85% and above	A+
70%--84%	A
60%-- 69%	B

**Course Coverage: Lecture: 39 hours+ Evaluation/ Flipped Class: 06 hours = Total 45 hours**  
**Broad Topics Covered: Upstream Oil & Gas Production in Off-shore, Exploitation of Deepwater Oilfields, Enhanced Oil Recovery of Mature Oil fields, Safety in Off-shore Oil fields, Overview of IOC Haldia Refinery, Reforming, Delayed Coking & Hydro-processing in IOC Refineries, Technology of LNG business today, Optimum Refinery configuration: Oil to Chemicals, Organic Chloride issues, Waste to Wealth; Prospects of CBM, Catalytic gasification of coal, Supply chain Mgt of Petroleum products, Circularity & valorization of Chemicals & Fuels, Technology applications in Indian Industry for Sustainable Growth; Industry 4.0: Applications in Refineries, IOT techniques for solving Global Problems, Sustainability & Energy Canvas**





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Vivekananda Institute of Environment & Management, Kolkata

**20 August 2021--29 September 2021**

*Certificate of Completion*

***This certificate is hereby awarded to Avoy Kumar of Heritage Institute of Technology who has successfully completed the Internship Program following all necessary criteria with A+ Grade.***

Certificate id: SUMMER2021002  
Date of issue: 26 October 2021

**Ashanendu Mandal**  
Former Chief General Manager,  
ONGC & Course Coordinator

**Dr Arunkanti Biswas**  
Secretary, VIEM &  
Jt. Course Director

**Dr Bhaskar Gupta**  
Professor, ETCE, JU &  
Course Director

## Grading System:

85% and above	A+
70%--84%	A
60%-- 69%	B

**Course Coverage: Lecture: 39 hours+ Evaluation/ Flipped Class: 06 hours = Total 45 hours**  
**Broad Topics Covered: Upstream Oil & Gas Production in Off-shore, Exploitation of Deepwater Oilfields, Enhanced Oil Recovery of Mature Oil fields, Safety in Off-shore Oil fields, Overview of IOC Haldia Refinery, Reforming, Delayed Coking & Hydro-processing in IOC Refineries, Technology of LNG business today, Optimum Refinery configuration: Oil to Chemicals, Organic Chloride issues, Waste to Wealth; Prospects of CBM, Catalytic gasification of coal, Supply chain Mgt of Petroleum products, Circularity & valorization of Chemicals & Fuels, Technology applications in Indian Industry for Sustainable Growth; Industry 4.0: Applications in Refineries, IOT techniques for solving Global Problems, Sustainability & Energy Canvas**



# Online Internship Program on Petroleum and Petrochemical Industries



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**20 August 2021--29 September 2021**

*Certificate of Completion*

***This certificate is hereby awarded to Reeshik Sarkar of Heritage Institute of Technology who has successfully completed the Internship Program following all necessary criteria with A Grade.***

Certificate id: SUMMER2021013  
Date of issue: 26 October 2021

**Ashanendu Mandal**  
Former Chief General Manager,  
ONGC & Course Coordinator

**Dr Arunkanti Biswas**  
Secretary, VIEM &  
Jt. Course Director

**Dr Bhaskar Gupta**  
Professor, ETCE, JU &  
Course Director

## Grading System:

85% and above	A+
70%--84%	A
60%-- 69%	B

**Course Coverage: Lecture: 39 hours+ Evaluation/ Flipped Class: 06 hours = Total 45 hours**  
**Broad Topics Covered: Upstream Oil & Gas Production in Off-shore, Exploitation of Deepwater Oilfields, Enhanced Oil Recovery of Mature Oil fields, Safety in Off-shore Oil fields, Overview of IOC Haldia Refinery, Reforming, Delayed Coking & Hydro-processing in IOC Refineries, Technology of LNG business today, Optimum Refinery configuration: Oil to Chemicals, Organic Chloride issues, Waste to Wealth; Prospects of CBM, Catalytic gasification of coal, Supply chain Mgt of Petroleum products, Circularity & valorization of Chemicals & Fuels, Technology applications in Indian Industry for Sustainable Growth; Industry 4.0: Applications in Refineries, IOT techniques for solving Global Problems, Sustainability & Energy Canvas**





# Online Internship Program on Petroleum and Petrochemical Industries



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**20 August 2021--29 September 2021**

*Certificate of Completion*

***This certificate is hereby awarded to Saptarshi Kundu of Heritage Institute of Technology who has successfully completed the Internship Program following all necessary criteria with A+ Grade.***

Certificate id: SUMMER2021014  
Date of issue: 26 October 2021

**Ashanendu Mandal**  
Former Chief General Manager,  
ONGC & Course Coordinator

**Dr Arunkanti Biswas**  
Secretary, VIEM &  
Jt. Course Director

**Dr Bhaskar Gupta**  
Professor, ETCE, JU &  
Course Director

## Grading System:

85% and above	A+
70%--84%	A
60%-- 69%	B

Course Coverage: Lecture: 39 hours+ Evaluation/ Flipped Class: 06 hours = Total 45 hours

Broad Topics Covered: Upstream Oil & Gas Production in Off-shore, Exploitation of Deepwater Oilfields, Enhanced Oil Recovery of Mature Oil fields, Safety in Off-shore Oil fields, Overview of IOC Haldia Refinery, Reforming, Delayed Coking & Hydro-processing in IOC Refineries, Technology of LNG business today, Optimum Refinery configuration: Oil to Chemicals, Organic Chloride issues, Waste to Wealth; Prospects of CBM, Catalytic gasification of coal, Supply chain Mgt of Petroleum products, Circularity & valorization of Chemicals & Fuels, Technology applications in Indian Industry for Sustainable Growth; Industry 4.0: Applications in Refineries, IOT techniques for solving Global Problems, Sustainability & Energy Canvas



# Online Internship Program on Petroleum and Petrochemical Industries



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**20 August 2021--29 September 2021**

*Certificate of Completion*

***This certificate is hereby awarded to Abhishek Adhikary of Heritage Institute of Technology who has successfully completed the Internship Program following all necessary criteria with A Grade.***

Certificate id: SUMMER2021015  
Date of issue: 26 October 2021

**Ashanendu Mandal**  
Former Chief General Manager,  
ONGC & Course Coordinator

**Dr Arunkanti Biswas**  
Secretary, VIEM &  
Jt. Course Director

**Dr Bhaskar Gupta**  
Professor, ETCE, JU &  
Course Director

## Grading System:

85% and above	A+
70%--84%	A
60%-- 69%	B

Course Coverage: Lecture: 39 hours+ Evaluation/ Flipped Class: 06 hours = Total 45 hours

Broad Topics Covered: Upstream Oil & Gas Production in Off-shore, Exploitation of Deepwater Oilfields, Enhanced Oil Recovery of Mature Oil fields, Safety in Off-shore Oil fields, Overview of IOC Haldia Refinery, Reforming, Delayed Coking & Hydro-processing in IOC Refineries, Technology of LNG business today, Optimum Refinery configuration: Oil to Chemicals, Organic Chloride issues, Waste to Wealth; Prospects of CBM, Catalytic gasification of coal, Supply chain Mgt of Petroleum products, Circularity & valorization of Chemicals & Fuels, Technology applications in Indian Industry for Sustainable Growth; Industry 4.0: Applications in Refineries, IOT techniques for solving Global Problems, Sustainability & Energy Canvas





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**20 August 2021--29 September 2021**

*Certificate of Completion*

***This certificate is hereby awarded to Siddhanta Chakraborty of Heritage Institute of Technology who has successfully completed the Internship Program following all necessary criteria with A Grade.***

Certificate id: SUMMER2021016  
Date of issue: 26 October 2021

**Ashanendu Mandal**  
Former Chief General Manager,  
ONGC & Course Coordinator

**Dr Arunkanti Biswas**  
Secretary, VIEM &  
Jt. Course Director

**Dr Bhaskar Gupta**  
Professor, ETCE, JU &  
Course Director

## Grading System:

85% and above	A+
70%--84%	A
60%-- 69%	B

**Course Coverage: Lecture: 39 hours+ Evaluation/ Flipped Class: 06 hours = Total 45 hours**  
**Broad Topics Covered: Upstream Oil & Gas Production in Off-shore, Exploitation of Deepwater Oilfields, Enhanced Oil Recovery of Mature Oil fields, Safety in Off-shore Oil fields, Overview of IOC Haldia Refinery, Reforming, Delayed Coking & Hydro-processing in IOC Refineries, Technology of LNG business today, Optimum Refinery configuration: Oil to Chemicals, Organic Chloride issues, Waste to Wealth; Prospects of CBM, Catalytic gasification of coal, Supply chain Mgt of Petroleum products, Circularity & valorization of Chemicals & Fuels, Technology applications in Indian Industry for Sustainable Growth; Industry 4.0: Applications in Refineries, IOT techniques for solving Global Problems, Sustainability & Energy Canvas**



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**20 August 2021--29 September 2021**

*Certificate of Completion*

***This certificate is hereby awarded to Sk Parvej Akhtar of Heritage Institute of Technology who has successfully completed the Internship Program following all necessary criteria with A+ Grade.***

Certificate id: SUMMER2021022  
Date of issue: 26 October 2021

**Ashanendu Mandal**  
Former Chief General Manager,  
ONGC & Course Coordinator

**Dr Arunkanti Biswas**  
Secretary, VIEM &  
Jt. Course Director

**Dr Bhaskar Gupta**  
Professor, ETCE, JU &  
Course Director

## Grading System:

85% and above	A+
70%--84%	A
60%-- 69%	B

**Course Coverage: Lecture: 39 hours+ Evaluation/ Flipped Class: 06 hours = Total 45 hours**  
**Broad Topics Covered: Upstream Oil & Gas Production in Off-shore, Exploitation of Deepwater Oilfields, Enhanced Oil Recovery of Mature Oil fields, Safety in Off-shore Oil fields, Overview of IOC Haldia Refinery, Reforming, Delayed Coking & Hydro-processing in IOC Refineries, Technology of LNG business today, Optimum Refinery configuration: Oil to Chemicals, Organic Chloride issues, Waste to Wealth; Prospects of CBM, Catalytic gasification of coal, Supply chain Mgt of Petroleum products, Circularity & valorization of Chemicals & Fuels, Technology applications in Indian Industry for Sustainable Growth; Industry 4.0: Applications in Refineries, IOT techniques for solving Global Problems, Sustainability & Energy Canvas**





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**20 August 2021--29 September 2021**

*Certificate of Completion*

***This certificate is hereby awarded to Saubhik Malik of Heritage Institute of Technology who has successfully completed the Internship Program following all necessary criteria with A Grade.***

Certificate id: SUMMER2021023  
Date of issue: 26 October 2021

**Ashanendu Mandal**  
Former Chief General Manager,  
ONGC & Course Coordinator

**Dr Arunkanti Biswas**  
Secretary, VIEM &  
Jt. Course Director

**Dr Bhaskar Gupta**  
Professor, ETCE, JU &  
Course Director

## Grading System:

85% and above	A+
70%--84%	A
60%-- 69%	B

**Course Coverage: Lecture: 39 hours+ Evaluation/ Flipped Class: 06 hours = Total 45 hours**  
**Broad Topics Covered: Upstream Oil & Gas Production in Off-shore, Exploitation of Deepwater Oilfields, Enhanced Oil Recovery of Mature Oil fields, Safety in Off-shore Oil fields, Overview of IOC Haldia Refinery, Reforming, Delayed Coking & Hydro-processing in IOC Refineries, Technology of LNG business today, Optimum Refinery configuration: Oil to Chemicals, Organic Chloride issues, Waste to Wealth; Prospects of CBM, Catalytic gasification of coal, Supply chain Mgt of Petroleum products, Circularity & valorization of Chemicals & Fuels, Technology applications in Indian Industry for Sustainable Growth; Industry 4.0: Applications in Refineries, IOT techniques for solving Global Problems, Sustainability & Energy Canvas**



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**20 August 2021--29 September 2021**

*Certificate of Completion*

***This certificate is hereby awarded to Arindam Gupta Roy of Heritage Institute of Technology who has successfully completed the Internship Program following all necessary criteria with A Grade.***

Certificate id: SUMMER2021026  
Date of issue: 26 October 2021

**Ashanendu Mandal**  
Former Chief General Manager,  
ONGC & Course Coordinator

**Dr Arunkanti Biswas**  
Secretary, VIEM &  
Jt. Course Director

**Dr Bhaskar Gupta**  
Professor, ETCE, JU &  
Course Director

## Grading System:

85% and above	A+
70%--84%	A
60%-- 69%	B

Course Coverage: Lecture: 39 hours+ Evaluation/ Flipped Class: 06 hours = Total 45 hours

Broad Topics Covered: Upstream Oil & Gas Production in Off-shore, Exploitation of Deepwater Oilfields, Enhanced Oil Recovery of Mature Oil fields, Safety in Off-shore Oil fields, Overview of IOC Haldia Refinery, Reforming, Delayed Coking & Hydro-processing in IOC Refineries, Technology of LNG business today, Optimum Refinery configuration: Oil to Chemicals, Organic Chloride issues, Waste to Wealth; Prospects of CBM, Catalytic gasification of coal, Supply chain Mgt of Petroleum products, Circularity & valorization of Chemicals & Fuels, Technology applications in Indian Industry for Sustainable Growth; Industry 4.0: Applications in Refineries, IOT techniques for solving Global Problems, Sustainability & Energy Canvas





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**20 August 2021--29 September 2021**

*Certificate of Completion*

***This certificate is hereby awarded to Shashi Shekhar of Heritage Institute of Technology who has successfully completed the Internship Program following all necessary criteria with A Grade.***

Certificate id: SUMMER2021028  
Date of issue: 26 October 2021

**Ashanendu Mandal**  
Former Chief General Manager,  
ONGC & Course Coordinator

**Dr Arunkanti Biswas**  
Secretary, VIEM &  
Jt. Course Director

**Dr Bhaskar Gupta**  
Professor, ETCE, JU &  
Course Director

## Grading System:

85% and above	A+
70%--84%	A
60%-- 69%	B

Course Coverage: Lecture: 39 hours+ Evaluation/ Flipped Class: 06 hours = Total 45 hours

Broad Topics Covered: Upstream Oil & Gas Production in Off-shore, Exploitation of Deepwater Oilfields, Enhanced Oil Recovery of Mature Oil fields, Safety in Off-shore Oil fields, Overview of IOC Haldia Refinery, Reforming, Delayed Coking & Hydro-processing in IOC Refineries, Technology of LNG business today, Optimum Refinery configuration: Oil to Chemicals, Organic Chloride issues, Waste to Wealth; Prospects of CBM, Catalytic gasification of coal, Supply chain Mgt of Petroleum products, Circularity & valorization of Chemicals & Fuels, Technology applications in Indian Industry for Sustainable Growth; Industry 4.0: Applications in Refineries, IOT techniques for solving Global Problems, Sustainability & Energy Canvas



# Online Internship Program on Petroleum and Petrochemical Industries



*Jointly Organized by*

Faculty of Engineering & Technology, Jadavpur University, Kolkata

*And*

Vivekananda Institute of Environment & Management, Kolkata

**20 August 2021--29 September 2021**

*Certificate of Completion*

***This certificate is hereby awarded to Sarbojit Bhattacharya of Heritage Institute of Technology who has successfully completed the Internship Program following all necessary criteria with A Grade.***

Certificate id: SUMMER2021029  
Date of issue: 26 October 2021

**Ashanendu Mandal**  
Former Chief General Manager,  
ONGC & Course Coordinator

**Dr Arunkanti Biswas**  
Secretary, VIEM &  
Jt. Course Director

**Dr Bhaskar Gupta**  
Professor, ETCE, JU &  
Course Director

## Grading System:

85% and above	A+
70%--84%	A
60%-- 69%	B

**Course Coverage: Lecture: 39 hours+ Evaluation/ Flipped Class: 06 hours = Total 45 hours**  
**Broad Topics Covered: Upstream Oil & Gas Production in Off-shore, Exploitation of Deepwater Oilfields, Enhanced Oil Recovery of Mature Oil fields, Safety in Off-shore Oil fields, Overview of IOC Haldia Refinery, Reforming, Delayed Coking & Hydro-processing in IOC Refineries, Technology of LNG business today, Optimum Refinery configuration: Oil to Chemicals, Organic Chloride issues, Waste to Wealth; Prospects of CBM, Catalytic gasification of coal, Supply chain Mgt of Petroleum products, Circularity & valorization of Chemicals & Fuels, Technology applications in Indian Industry for Sustainable Growth; Industry 4.0: Applications in Refineries, IOT techniques for solving Global Problems, Sustainability & Energy Canvas**





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And

Vivekananda Institute of Environment & Management, Kolkata

**20 August 2021--29 September 2021**

*Certificate of Completion*

***This certificate is hereby awarded to Richik Deogharia of Heritage Institute of Technology who has successfully completed the Internship Program following all necessary criteria with A+ Grade.***

Certificate id: SUMMER2021035  
Date of issue: 26 October 2021

**Ashanendu Mandal**  
Former Chief General Manager,  
ONGC & Course Coordinator

**Dr Arunkanti Biswas**  
Secretary, VIEM &  
Jt. Course Director

**Dr Bhaskar Gupta**  
Professor, ETCE, JU &  
Course Director

## Grading System:

85% and above	A+
70%--84%	A
60%-- 69%	B

Course Coverage: Lecture: 39 hours+ Evaluation/ Flipped Class: 06 hours = Total 45 hours

Broad Topics Covered: Upstream Oil & Gas Production in Off-shore, Exploitation of Deepwater Oilfields, Enhanced Oil Recovery of Mature Oil fields, Safety in Off-shore Oil fields, Overview of IOC Haldia Refinery, Reforming, Delayed Coking & Hydro-processing in IOC Refineries, Technology of LNG business today, Optimum Refinery configuration: Oil to Chemicals, Organic Chloride issues, Waste to Wealth; Prospects of CBM, Catalytic gasification of coal, Supply chain Mgt of Petroleum products, Circularity & valorization of Chemicals & Fuels, Technology applications in Indian Industry for Sustainable Growth; Industry 4.0: Applications in Refineries, IOT techniques for solving Global Problems, Sustainability & Energy Canvas



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And

Vivekananda Institute of Environment & Management, Kolkata

**20 August 2021--29 September 2021**

*Certificate of Completion*

***This certificate is hereby awarded to Samagga Mukherjee of Heritage Institute of Technology who has successfully completed the Internship Program following all necessary criteria with A Grade.***

Certificate id: SUMMER2021037  
Date of issue: 26 October 2021

**Ashanendu Mandal**  
Former Chief General Manager,  
ONGC & Course Coordinator

**Dr Arunkanti Biswas**  
Secretary, VIEM &  
Jt. Course Director

**Dr Bhaskar Gupta**  
Professor, ETCE, JU &  
Course Director

## Grading System:

85% and above	A+
70%--84%	A
60%-- 69%	B

Course Coverage: Lecture: 39 hours+ Evaluation/ Flipped Class: 06 hours = Total 45 hours

Broad Topics Covered: Upstream Oil & Gas Production in Off-shore, Exploitation of Deepwater Oilfields, Enhanced Oil Recovery of Mature Oil fields, Safety in Off-shore Oil fields, Overview of IOC Haldia Refinery, Reforming, Delayed Coking & Hydro-processing in IOC Refineries, Technology of LNG business today, Optimum Refinery configuration: Oil to Chemicals, Organic Chloride issues, Waste to Wealth; Prospects of CBM, Catalytic gasification of coal, Supply chain Mgt of Petroleum products, Circularity & valorization of Chemicals & Fuels, Technology applications in Indian Industry for Sustainable Growth; Industry 4.0: Applications in Refineries, IOT techniques for solving Global Problems, Sustainability & Energy Canvas





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And

Vivekananda Institute of Environment & Management, Kolkata

**20 August 2021--29 September 2021**

*Certificate of Completion*

**This certificate is hereby awarded to Abhishek Kumar of Heritage Institute of Technology who has successfully completed the Internship Program following all necessary criteria with A Grade.**

Certificate id: SUMMER2021043  
Date of issue: 26 October 2021

**Ashanendu Mandal**  
Former Chief General Manager,  
ONGC & Course Coordinator

**Dr Arunkanti Biswas**  
Secretary, VIEM &  
Jt. Course Director

**Dr Bhaskar Gupta**  
Professor, ETCE, JU &  
Course Director

## Grading System:

85% and above	A+
70%--84%	A
60%-- 69%	B

Course Coverage: Lecture: 39 hours+ Evaluation/ Flipped Class: 06 hours = Total 45 hours  
Broad Topics Covered: Upstream Oil & Gas Production in Off-shore, Exploitation of Deepwater Oilfields, Enhanced Oil Recovery of Mature Oil fields, Safety in Off-shore Oil fields, Overview of IOC Haldia Refinery, Reforming, Delayed Coking & Hydro-processing in IOC Refineries, Technology of LNG business today, Optimum Refinery configuration: Oil to Chemicals, Organic Chloride issues, Waste to Wealth; Prospects of CBM, Catalytic gasification of coal, Supply chain Mgt of Petroleum products, Circularity & valorization of Chemicals & Fuels, Technology applications in Indian Industry for Sustainable Growth; Industry 4.0: Applications in Refineries, IOT techniques for solving Global Problems, Sustainability & Energy Canvas



# Online Internship Program on Petroleum and Petrochemical Industries



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Faculty of Engineering & Technology, Jadavpur University, Kolkata

And

Vivekananda Institute of Environment & Management, Kolkata

**20 August 2021--29 September 2020**

*Certificate of Completion*

***This certificate is hereby awarded to Rudra Prosad Dana of Heritage Institute of Technology who has successfully completed the Internship Program following all necessary criteria with B Grade.***

Certificate id: SUMMER2021046  
Date of issue: 26 October 2021

**Ashanendu Mandal**  
Former Chief General Manager,  
ONGC & Course Coordinator

**Dr Arunkanti Biswas**  
Secretary, VIEM &  
Jt. Course Director

**Dr Bhaskar Gupta**  
Professor, ETCE, JU &  
Course Director

## Grading System:

85% and above	A+
70%--84%	A
60%-- 69%	B

**Course Coverage: Lecture: 39 hours+ Evaluation/ Flipped Class: 06 hours = Total 45 hours**  
**Broad Topics Covered: Upstream Oil & Gas Production in Off-shore, Exploitation of Deepwater Oilfields, Enhanced Oil Recovery of Mature Oil fields, Safety in Off-shore Oil fields, Overview of IOC Haldia Refinery, Reforming, Delayed Coking & Hydro-processing in IOC Refineries, Technology of LNG business today, Optimum Refinery configuration: Oil to Chemicals, Organic Chloride issues, Waste to Wealth; Prospects of CBM, Catalytic gasification of coal, Supply chain Mgt of Petroleum products, Circularity & valorization of Chemicals & Fuels, Technology applications in Indian Industry for Sustainable Growth; Industry 4.0: Applications in Refineries, IOT techniques for solving Global Problems, Sustainability & Energy Canvas**