



e-Certificate of Participation



This is certified that Dr. R.P.DALAI
has participated & completed successfully Online QIP Short Term Course on *Advances in energy and functional materials* from 14th June to 26th June 2021 at School of Minerals Metallurgical and Materials Engineering, Indian Institute of Technology Bhubaneswar.

Date of issue: 26/06/2021

Dr. Soobhankar Pati
(Course Coordinator)

Prof. S. K. Mahapatra
(Course Coordinator & Dean, CE)



राष्ट्रीय प्रौद्योगिकी संस्थान दिल्ली

National Institute of Technology Delhi

(An Autonomous Institute under the aegis of Ministry of Education, Govt. of India)

DEPARTMENT OF MECHANICAL ENGINEERING, NIT DELHI

Certificate of Participation

*This certificate is awarded to **Dr. Renuprava Dalai** of **VSSUT Burla, Odisha** for Participating in self finance online faculty Development Programme on "**Modern Trends in Manufacturing and Thermal Science (MTMTS-2022)**" organized by Department of Mechanical Engineering, National Institute of Technology Delhi, India, held during April 05-10th, 2022.*

Dr. Ashok Kumar Dewangan
(Coordinator)

Dr. Leeladhar Nagdeve
(Coordinator)

Dr. Harish Kumar
(Convener)



CERTIFICATE OF PARTICIPATION

This certificate is awarded to

Dr. Sasmita Behera

*of **Veer Surendra Sai University of Technology, Burla** in recognition of his/her participation and completion of **Live Industrial Training on ANSYS Software** organised by EnFlare Technologies from **16th-25th August, 2021***

A handwritten signature in black ink, appearing to read "Venkata Sarath Panathula".

Venkata Sarath Panathula

Co-Founder & CTO, EFT



25th August, 2021

Date

Certificate ID: EFTIND059

Certificate of Participation

Dr. Sasmita Behera

has completed One Week

Short Term Training Programme through ICT Mode on
Estimating and Costing of Non-conventional Energies

organised by this Institute

from 9th May to 13th May, 2022 successfully.



NATIONAL INSTITUTE OF
TECHNICAL TEACHERS'
TRAINING AND RESEARCH
(NITTTR) KOLKATA

**(Established by the
Ministry of Education
Government of India)**

Smt. Sheela Yadav Rai
Programme Coordinator(s)

Dr. Sukanta Kumar Naskar
Faculty-in-Charge, Training Cell

Prof. Debi Prasad Mishra
Director



Maharishi University of Information Technology

(Established Vide Uttar Pradesh Act. No. 31 of 2001)
Lucknow-226013 (UP)

CERTIFICATE NO.: MUIT/FDP/FEB_2022/95

Date: 01/03/2022

CERTIFICATE OF PARTICIPATION

This is to certify that

Subhadra Sahoo

has successfully completed
5-Day Online Faculty Development Program

On

“CRITICAL INSIGHTS ON VISION AND READINESS FOR ADOPTING NEP-2020 BY HEIs”

Organized by

Maharishi University of Information Technology

7th February - 11th February 2022

Prof. Bhanu Pratap Singh
Vice Chancellor, MUIT

Dr. Neeraj Jain
FDP Convener, MUIT

Mr. Kamshad Mohsin
FDP Convener, MUIT

Roll No:NPTEL21GE07S24280060

To DR SASMITA ACHARYA
QTR NO C/73
JAGRUTI VIHAR BURLA
SAMBALPUR
ODISHA - 768020
PH. NO :9437230871



Duration of NPTEL course: 8 Weeks

No. of weeks of NPTEL Courses	Equivalence of NPTEL course with regular FDP
4	$\frac{1}{2}$ FDP of one week
8	Full FDP of one week
12	$1\frac{1}{2}$ FDP



NPTEL-AICTE Faculty Development Programme

(Funded by the Ministry of HRD, Govt. of India)



This certificate is awarded to

DR SASMITA ACHARYA

for successfully completing the course

Fuzzy Logic and Neural Networks

with a consolidated score of **91 %**

Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras

(Feb-Apr 2021)

Prof. Dileep N. Malkhede
Advisor-I (Research, Institute & Faculty Development)
All India Council for Technical Education

Roll No: NPTEL21GE07S24280060

To validate and check scores: <http://nptel.ac.in/noc>

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

This certificate is computer generated and can be verified by scanning the QR code given below. This will display the certificate from the NPTEL repository, <https://nptel.ac.in/noc/>

Roll No: NPTEL21CS11S22250000

To
DR SASMITA ACHARYA
QTR NO C/73
JAGRUTI VIHAR BURLA
SAMBALPUR
ODISHA - 768020
PH. NO :9437230871



Score	Type of Certificate
>=90	Elite+Gold
75-89	Elite+Silver
>=60	Elite
40-59	Successfully Completed
<40	No Certificate

No. of credits recommended by NPTEL:2

An additional 1 credit may be awarded if the University deems it fit, based on the actual student effort involved.



Elite

NPTEL Online Certification

(Funded by the Ministry of HRD, Govt. of India)



This certificate is awarded to

DR SASMITA ACHARYA

for successfully completing the course



Introduction to Soft Computing

with a consolidated score of **83** %

Online Assignments	23.58/25	Proctored Exam	59.12/75
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Total number of candidates certified in this course: **166**

Prof. G P Raja Sekhar
Dean, Continuing Education
IIT Kharagpur

Jan-Mar 2021
(8 week course)

Prof. Debjani Chakraborty
Coordinator, NPTEL
IIT Kharagpur



Indian Institute of Technology Kharagpur



Roll No:NPTEL21CS63S44290110

To DR SASMITA ACHARYA
QTR NO C/73
JAGRUTI VIHAR BURLA
SAMBALPUR
ODISHA - 768020
PH. NO :9437230871



Duration of NPTEL course: 12 Weeks

No. of weeks of NPTEL Courses	Equivalence of NPTEL course with regular FDP
4	$\frac{1}{2}$ FDP of one week
8	Full FDP of one week
12	$1\frac{1}{2}$ FDP



NPTEL-AICTE Faculty Development Programme

(Funded by the Ministry of HRD, Govt. of India)



This certificate is awarded to

DR SASMITA ACHARYA

for successfully completing the course

Introduction to Internet of Things

with a consolidated score of **64 %**

Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras

(Jul-Oct 2021)

Prof. Dileep N. Malkhede
Advisor-I (Research, Institute & Faculty Development)
All India Council for Technical Education

Roll No: NPTEL21CS63S44290110

To validate and check scores: <http://nptel.ac.in/noc>

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



DEPARTMENT OF MECHANICAL ENGINEERING

Indira Gandhi Institute of Technology, Sarang
Dhenkanal-759146, Odisha



TEQIP-III Sponsored One Week Faculty Development Programme (FDP) on **'Concepts & Applications of Composite Materials'** (CACM-2021)

Certificate of Participation

This certificate is hereby presented to

Mrs. SUNITA SETHY

ASSISTANT PROFESSOR, VSSUT, BURLA

has actively participated in TEQIP-III sponsored one week online Faculty Development Programme (FDP) on
'Concepts & Applications of Composite Materials (CACM-2021)'
organized by the Department of Mechanical Engineering, IGIT, Sarang, 759146 from 23rd-27th February 2021.

A. Padhi
27.02.2021

Mr. Ansuman Padhi
(Coordinator)

Gaurab Ghosh
27.02.2021

Mr. Gaurab Kumar Ghosh
(Coordinator)

S. Mohanta
27/02/2021

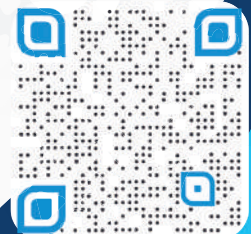
Dr. Satyabrata Mohanta
(Director)

Bidyadhar Sahoo
27/2/21

Dr. Bidyadhar Sahoo
(Head of the Department,
Mechanical Engineering)

Rabindra Behera
27.02.21

Dr. Rabindra Behera
(Teqip-III Coordinator)





e-Certificate of Participation



This is certified that DINESH KUMAR MISHRA
has participated & completed successfully Online QIP Short Term Course on *Advances in energy and functional materials* from 14th June to 26th June 2021 at School of Minerals Metallurgical and Materials Engineering, Indian Institute of Technology Bhubaneswar.

Date of issue: 26/06/2021

Dr. Soobhankar Pati
(Course Coordinator)

Prof. S. K. Mahapatra
(Course Coordinator & Dean, CE)

Roll No: NPTEL22MM06S14150025

To DINESH KUMAR MISHRA
ROOM NO-B-317, DEPARTMENT OF MME
VSSUT, BURLA
BURLA
ODISHA - 768018
PH. NO :8763457107

Duration of NPTEL course: 8 Weeks



No. of weeks of NPTEL Courses	Equivalence of NPTEL course with regular FDP
4	$\frac{1}{2}$ FDP of one week
8	Full FDP of one week
12	$1\frac{1}{2}$ FDP



NPTEL-AICTE Faculty Development Programme

(Funded by the MoE, Govt. of India)



This certificate is awarded to

DINESH KUMAR MISHRA

for successfully completing the course

Properties of Materials (Nature and Properties of Materials : III)

with a consolidated score of **77 %**

Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras

(Feb-Apr 2022)

Prof. Dileep N. Malkhede
Advisor-I (Research, Institute & Faculty Development)
All India Council for Technical Education

Roll No: NPTEL22MM06S14150025

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

Roll No:NPTEL21MM29S14200068

To DINESH KUMAR MISHRA
ROOM NO-B-317, DEPARTMENT OF MME
VSSUT, BURLA
BURLA
ODISHA - 768018
PH. NO :8763457107



Duration of NPTEL course: 8 Weeks

No. of weeks of NPTEL Courses	Equivalence of NPTEL course with regular FDP
4	$\frac{1}{2}$ FDP of one week
8	Full FDP of one week
12	$1\frac{1}{2}$ FDP



NPTEL-AICTE Faculty Development Programme

(Funded by the Ministry of HRD, Govt. of India)



This certificate is awarded to

DINESH KUMAR MISHRA

for successfully completing the course

Phase Equilibria in Materials (Nature & Properties of Materials-II)

with a consolidated score of **84 %**

Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras

(Jul-Sep 2021)

Prof. Dileep N. Malkhede
Advisor-I (Research, Institute & Faculty Development)
All India Council for Technical Education

Roll No: NPTEL21MM29S14200068

To validate and check scores: <http://nptel.ac.in/noc>

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

No: ATAL/2021/1633069314



ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

Nelson Mandela Marg, Vasant Kunj, New Delhi – 110 070

AICTE Training and Learning (ATAL) Academy

Certificate

This is certified that **Dr. Aruna Kumar Barick**, Asst. Professor of **VSSUT, Burla** contributed as **Resource Person** in AICTE Training And Learning (ATAL) Academy **Online Elementary** FDP on "**Emerging Trends in Characterization Techniques for Applied Polymer Research**" from **13/09/2021** to **17/09/2021** at **CENTRAL INSTITUTE OF PETROCHEMICALS ENGINEERING & TECHNOLOGY (CIPET)** .

Advisor-I, ATAL Academy
Mamta Rani Agarwal



Coordinator



BMS SCHOOL OF ARCHITECTURE
Yelahanka, Bangalore



THE INDIAN INSTITUTE OF ARCHITECTS
Karnataka Chapter, Bangalore

CERTIFICATE OF PARTICIPATION

This certificate is awarded to

Bharati Mohapatra

for participating in the Professional Development Program

Emerging Technologies for Architecture & Construction

From 18th Sept, Saturday to 25th Sept, 2021

Conveyed by

Dr. Shaila Bantanur Director, BMS School of Architecture, Bangalore
and

Ar. Mohan B. R. Chairman, IIA Karnataka Chapter, Bangalore

Ar. C R Raju,
President IIA

Dr. Shaila Bantanur
Director, BMS School of Architecture
Yelahanka, Bangalore

Ar. Mohan B. R.
Chairman, IIA Karnataka Chapter
Bangalore

Roll No: NPTEL22CY28S44190093

To ARUNA KUMAR BARICK
DEPARTMENT OF CHEMISTRY
VEER SURENDRA SAI UNIVERSITY OF
TECHNOLOGY BURLA
SAMBALPUR
ODISHA - 768018
PH. NO :9937069518



Duration of NPTEL course: 8 Weeks

No. of weeks of NPTEL Courses	Equivalence of NPTEL course with regular FDP
4	$\frac{1}{2}$ FDP of one week
8	Full FDP of one week
12	$1\frac{1}{2}$ FDP



NPTEL-AICTE Faculty Development Programme

(Funded by the Ministry of HRD, Govt. of India)



This certificate is awarded to

ARUNA KUMAR BARICK

for successfully completing the course

Chemical Applications of Symmetry and Group Theory

with a consolidated score of **87 %**



Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras

(Jan-Mar 2022)

Prof. Dileep N. Malkhede
Advisor-I (Research, Institute & Faculty Development)
All India Council for Technical Education

Roll No: NPTEL22CY28S44190093

To validate and check scores: <http://nptel.ac.in/noc>

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

Roll No:NPTEL21MM36S14200103

To NILAKANTHA SAHU
DEPT. OF MME
VSSUT BURLA
SAMBALPUR
ODISHA - 768018
PH. NO :7894004383



Duration of NPTEL course: 8 Weeks

No. of weeks of NPTEL Courses	Equivalence of NPTEL course with regular FDP
4	$\frac{1}{2}$ FDP of one week
8	Full FDP of one week
12	$1\frac{1}{2}$ FDP



NPTEL-AICTE Faculty Development Programme



(Funded by the Ministry of HRD, Govt. of India)

This certificate is awarded to

NILAKANTHA SAHU

for successfully completing the course

Corrosion Failures and Analysis

with a consolidated score of **81 %**



Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras

(Jul-Sep 2021)

Prof. Dileep N. Malkhede
Advisor-I (Research, Institute & Faculty Development)
All India Council for Technical Education

Roll No: NPTEL21MM36S14200103

To validate and check scores: <http://nptel.ac.in/noc>

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



AICTE SPONSORED

6-Days Short Term Training Programme (STTP)

" EMERGING NANO-MATERIALS FOR SUSTAINABILITY "



Organised by



Maulana Abul Kalam Azad University of Technology, West Bengal

This is to certify that **Dr. ARUNA KUMAR BARICK** *of*

VEER SURENDRA SAI UNIVERSITY OF TECHNOLOGY, BURLA, SAMBALPUR, ODISHA *has successfully*

completed the online training programme on " EMERGING NANO-MATERIALS FOR SUSTAINABILITY " held during 30th August - 4th September 2021.

Ms. Monalisa Char

Program Coordinator,
Department of Materials Science and Technology,
MAKAUT, WB

Dr. Subhashis Datta

STTP Program Coordinator,
Controller of Examinations,
MAKAUT, WB

Dr. P.P. Lahiri

Registrar
MAKAUT, WB

This certificate can be considered as Half Faculty Development Program

Roll No: NPTEL21ME82S34290060

TO NILAKANTHA SAHU
DEPT. OF MME
VSSUT BURLA
SAMBALPUR
ODISHA - 768018
PH. NO :7894004383



Duration of NPTEL course: 8 Weeks

No. of weeks of NPTEL Courses	Equivalence of NPTEL course with regular FDP
4	$\frac{1}{2}$ FDP of one week
8	Full FDP of one week
12	$1\frac{1}{2}$ FDP



NPTEL-AICTE Faculty Development Programme



(Funded by the Ministry of HRD, Govt. of India)

This certificate is awarded to

NILAKANTHA SAHU

for successfully completing the course

Joining Technologies for Metals

with a consolidated score of **75 %**



Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras

(Aug-Oct 2021)

Prof. Dileep N. Malkhede
Advisor-I (Research, Institute & Faculty Development)
All India Council for Technical Education

Roll No: NPTEL21ME82S34290060

To validate and check scores: <http://nptel.ac.in/noc>

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



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CRDF CEPT RESEARCH AND DEVELOPMENT FOUNDATION

CEPT UNIVERSITY

KNOWLEDGE PARTNERS:



IIA Odisha Chapter



Institute of Town Planners, India
(Odisha Regional Chapter)

Certificate of Participation

This is to Certify that

Bharati Mohapatra

Has successfully completed the Online Training Programme on
**“Sustainable Urban Infrastructure & Nature based Solutions
for Indian Cities”** held on 15th to 17th July, 2021

Aparna Das
Senior Advisor, SUD-SC, GIZ

Darshan Parikh
Director, CRDF, CEPT University

This certificate is computer generated and can be verified by scanning the QR code given below. This will display the certificate from the NPTEL repository, <https://nptel.ac.in/noc/>

Roll No: NPTEL21MM01S14280062

To
NILAKANTHA SAHU
DEPT. OF MME
VSSUT BURLA
SAMBALPUR
ODISHA - 768018
PH. NO :7894004383



Score	Type of Certificate
>=90	Elite+Gold
75-89	Elite+Silver
>=60	Elite
40-59	Successfully Completed
<40	No Certificate

No. of credits recommended by NPTEL:3

An additional 1 credit may be awarded if the University deems it fit, based on the actual student effort involved.



Elite

NPTEL Online Certification

(Funded by the Ministry of HRD, Govt. of India)



This certificate is awarded to

NILAKANTHA SAHU

for successfully completing the course

Welding Processes

with a consolidated score of **68** %

Online Assignments	16.78/25	Proctored Exam	51.13/75
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Total number of candidates certified in this course: **52**

Devendra Jalihal

Prof. Devendra Jalihal
Chairman
Centre for Continuing Education, IITM

Jan-Apr 2021
(12 week course)

Prof. Andrew Thangaraj

Prof. Andrew Thangaraj
NPTEL, Coordinator
IIT Madras



Indian Institute of Technology Madras



Roll No:NPTEL21CY38S24290111

To ARUNA KUMAR BARICK
DEPARTMENT OF CHEMISTRY
VEER SURENDRA SAI UNIVERSITY OF
TECHNOLOGY BURLA
SAMBALPUR
ODISHA - 768018
PH. NO :9937069518



Duration of NPTEL course: 12 Weeks

No. of weeks of NPTEL Courses	Equivalence of NPTEL course with regular FDP
4	$\frac{1}{2}$ FDP of one week
8	Full FDP of one week
12	$1\frac{1}{2}$ FDP



NPTEL-AICTE Faculty Development Programme

(Funded by the Ministry of HRD, Govt. of India)



This certificate is awarded to

ARUNA KUMAR BARICK

for successfully completing the course

Quantum Chemistry of Atoms and Molecules

with a consolidated score of **53 %**



Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras

(Jul-Oct 2021)

Prof. Dileep N. Malkhede
Advisor-I (Research, Institute & Faculty Development)
All India Council for Technical Education

Roll No: NPTEL21CY38S24290111

To validate and check scores: <http://nptel.ac.in/noc>

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

Roll No:NPTEL21MM01S14280062

To NILAKANTHA SAHU
DEPT. OF MME
VSSUT BURLA
SAMBALPUR
ODISHA - 768018
PH. NO :7894004383



Duration of NPTEL course: 12 Weeks

No. of weeks of NPTEL Courses	Equivalence of NPTEL course with regular FDP
4	$\frac{1}{2}$ FDP of one week
8	Full FDP of one week
12	$1\frac{1}{2}$ FDP



NPTEL-AICTE Faculty Development Programme



(Funded by the Ministry of HRD, Govt. of India)

This certificate is awarded to

NILAKANTHA SAHU

for successfully completing the course

Welding Processes

with a consolidated score of **68 %**



Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras

(Jan-Apr 2021)

Prof. Dileep N. Malkhede
Advisor-I (Research, Institute & Faculty Development)
All India Council for Technical Education

Roll No: NPTEL21MM01S14280062

To validate and check scores: <http://nptel.ac.in/noc>

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

National Institute of Technology Andhra Pradesh

(An autonomous Institute under the aegis of Ministry of Education, Govt. of India)



Certificate of participation

This is to certify that **Dr. Aruna Kumar Barick** has participated in the five day online Faculty Development Programme on “*Advances and Challenges in Chemical Science*”, organized by the School of Sciences (Chemistry), held from 20th - 24th September, 2021.

Dr. Amarendar Reddy
Coordinator
NIT Andhra Pradesh

Dr. Surendra
Coordinator
NIT Andhra Pradesh

Dr. Dinesh P. Sankar Reddy
I/c Registrar
NIT Andhra Pradesh

Issued on 27/09/2021

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Applied Soft Computing
Volume 111, November 2021, 107616

FPGA implementation of fuzzy sparse adaptive equalizer for indoor wireless communication systems

Swetaleena Sahoo (M.Tech.)^a , Yash Keju Barapatre (B.Tech.)^a , Harish Kumar Sahoo (Ph.D.)^b  , Sarita Nanda (Ph.D.)^a 

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<https://doi.org/10.1016/j.asoc.2021.107616>

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Highlights

- Sparse Adaptive Equalization Model for Indoor Communication System using Fuzzy rule based learning Parameter.
- Testing of the equalizer using IEEE 802.11 channel model and evaluation of performance measures.
- Hardware implementation of the blocks using Xilinx FPGA.

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Abstract

Channel equalization is a basic requirement of wireless receiver to alleviate the effects of inter symbol interference (ISI) that helps in faithful reconstruction of original information. The accuracy of channel state information (CSI) also affects the equalizer performance designed for fading communication channels. The paper proposes a robust decision feedback equalizer (DFE) for indoor wireless channels with limited user mobility using sparse fuzzy modeling. The main contributions of the paper can be realized looking into three important aspects. First, the equalizer is designed for practical indoor channel conditions using adaptive model whose learning parameter is selected using fuzzy rule. Second, the computational complexity is substantially reduced by incorporating norm-based sparsity to the cost function. Third important point is validation of equalization model using Xilinx FPGA and Artix 7 board. QPSK modulated data is transmitted through the channel having non-ideal frequency response which is characterized by IEEE 802.11 model. Further bit error rate(BER), mean square error(MSE), eye diagram and power delay profile(PDP) are taken as the performance measures to test the equalizer in presence of fading effects and user mobility. Both MATLAB simulation and FPGA implementation results are presented to justify the usefulness of the proposed equalization model for indoor wireless communication.

[< Previous](#)[Next >](#)

Keywords

Indoor channel; Fuzzy rule; Norm based sparsity; PDP; Xilinx FPGA

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No:ATAL/2021/1622870959



ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

Nelson Mandela Marg, Vasant Kunj, New Delhi – 110 070

AICTE Training And Learning (ATAL) Academy

Certificate

This is certified that **Aruna Kumar Barick, Assistant Professor** of **Veer Surendra Sai University of Technology Burla** participated & completed successfully AICTE Training And Learning (ATAL) Academy **Online Elementary FDP** on "**Targeted Delivery of Green Synthesized Nanomaterials and their importance in 21st Century**" from **2021-7-7** to **2021-7-11** at **UTKAL UNIVERSITY**.

Adviser-I, ATAL Academy



Coordinator

No:ATAL/2021/1622871491



ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

Nelson Mandela Marg, Vasant Kunj, New Delhi – 110 070

AICTE Training And Learning (ATAL) Academy

Certificate

This is certified that **Aruna Kumar Barick, Assistant Professor** of **Veer Surendra Sai University of Technology Burla** participated & completed successfully AICTE Training And Learning (ATAL) Academy **Online Elementary FDP** on "**Plastics Product Manufacturing & Recycling Techniques**" from **2021-7-19** to **2021-7-23** at **CENTRAL INSTITUTE OF PETROCHEMICALS ENGINEERING AND TECHNOLOGY : CENTRE FOR SKILLING AND TECHNICAL SUPPORT (CIPET: CSTS) GUWAHATI**.

Adviser-I, ATAL Academy



Coordinator



ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

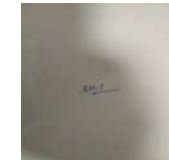
Nelson Mandela Marg, Vasant Kunj, New Delhi – 110 070

AICTE Training and Learning (ATAL) Academy

Certificate

This is certified that **Dr. Aruna Kumar Barick, Asst. Professor** of **VSSUT, Burla** contributed as **Resource Person** in AICTE Training And Learning (ATAL) Academy **Online Elementary** FDP on "**Emerging Trends in Characterization Techniques for Applied Polymer Research**" from **13/09/2021** to **17/09/2021** at **CENTRAL INSTITUTE OF PETROCHEMICALS ENGINEERING & TECHNOLOGY (CIPET)** .

Advisor-I, ATAL Academy
Mamta Rani Agarwal



Coordinator

No: ATAL/2021/1622870850



ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

Nelson Mandela Marg, Vasant Kunj, New Delhi – 110 070

AICTE Training and Learning (ATAL) Academy

Certificate

This is certified that **Aruna Kumar Barick**, Assistant Professor of **Veer Surendra Sai University of Technology Burla** participated & completed successfully AICTE Training And Learning (ATAL) Academy Online Elementary FDP on "**Novel Materials, Fabrication, Design & Optimization**" from **20/09/2021** to **24/09/2021** at **Veer Surendra Sai University of Technology, Burla**.

Advisor-I, ATAL Academy
Mamta Rani Agarwal



Coordinator

No: ATAL/2021/1630153730



ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

Nelson Mandela Marg, Vasant Kunj, New Delhi – 110 070

AICTE Training and Learning (ATAL) Academy

Certificate

This is certified that **Dr. D.S.Ramakrishna**, Assistant Professor of **Veer Surendra Sai University of Technology** participated & completed successfully AICTE Training And Learning (ATAL) Academy Online Elementary FDP on "**Research Ethics**" from **07/09/2021** to **11/09/2021** at **Doctor Harisingh Gour Vishwavidyalaya Sagar**.

Advisor-I, ATAL Academy
Mamta Rani Agarwal



Coordinator

No: ATAL/2021/1623739032



ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

Nelson Mandela Marg, Vasant Kunj, New Delhi – 110 070

AICTE Training and Learning (ATAL) Academy

Certificate

This is certified that **BIRENDRA KUMAR BARIK**, Assistant Professor of **Veer Surendra Sai University of Technology Burla, Odisha** participated & completed successfully AICTE Training And Learning (ATAL) Academy **Online Elementary FDP** on "**Emerging Techniques and Applications in IoT**" from **09/08/2021** to **13/08/2021** at **VEER SURENDRA SAI UNIVERSITY OF TECHNOLOGY**.

Advisor-I, ATAL Academy
Mamta Rani Agarwal



Coordinator

No: ATAL/2021/1628924761



ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

Nelson Mandela Marg, Vasant Kunj, New Delhi – 110 070

AICTE Training and Learning (ATAL) Academy

Certificate

This is certified that **BIRENDRA KUMAR BARIK**, Assistant Professor of **Veer Surendra Sai University of Technology Burla, Odisha** participated & completed successfully AICTE Training And Learning (ATAL) Academy **Online Elementary FDP** on "**Novel Materials, Fabrication, Design & Optimization**" from **20/09/2021** to **24/09/2021** at **Veer Surendra Sai University of Technology, Burla**.

Advisor-I, ATAL Academy
Mamta Rani Agarwal



Coordinator

No: ATAL/2021/1629276968



ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

Nelson Mandela Marg, Vasant Kunj, New Delhi – 110 070

AICTE Training and Learning (ATAL) Academy

Certificate

This is certified that **smिता padhan**, Assistant Professor of **veer surendra sia university of technology** participated & completed successfully AICTE Training And Learning (ATAL) Academy **Online Elementary** FDP on "**Novel Materials, Fabrication, Design & Optimization**" from **20/09/2021** to **24/09/2021** at **Veer Surendra Sai University of Technology, Burla.**

Advisor-I, ATAL Academy
Mamta Rani Agarwal



Coordinator

No: ATAL/2021/1626669346



ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

Nelson Mandela Marg, Vasant Kunj, New Delhi – 110 070

AICTE Training and Learning (ATAL) Academy

Certificate

This is certified that **Lipsamayee Mishra**, Assistant Professor of **VSSUT** participated & completed successfully AICTE Training And Learning (ATAL) Academy **Online Elementary** FDP on "**Novel Materials, Fabrication, Design & Optimization**" from **20/09/2021** to **24/09/2021** at **Veer Surendra Sai University of Technology, Burla**.

Advisor-I, ATAL Academy
Mamta Rani Agarwal



Coordinator



ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

Nelson Mandela Marg, Vasant Kunj, New Delhi – 110 070

AICTE Training and Learning (ATAL) Academy

Certificate

This is certified that **Dr. D.S.Ramakrishna**, Assistant Professor of **Veer Surendra Sai University of Technology** participated & completed successfully AICTE Training And Learning (ATAL) Academy Online Elementary FDP on "**Research Support Services in Academic Institutions**" from **24/08/2021** to **28/08/2021** at **DAYALBAGH EDUCATIONAL INSTITUTE (Deemed to be University)**.

Advisor-I, ATAL Academy
Mamta Rani Agarwal



Coordinator

नामांकन सं. / Enrolment No. : 2021841108944

CERTIFICATE OF PARTICIPATION IN ONLINE COURSE



यह प्रमाणपत्र

डॉ० भारती मोहापात्रा

को “भू-स्थानिक मॉडलिंग द्वारा वाटरशेड प्रबंधन”

में ऑनलाइन पाठ्यक्रम में भाग लेने पर प्रदान किया जाता है।

इस ऑनलाइन पाठ्यक्रम का आयोजन 02 अगस्त, 2021 से 06 अगस्त, 2021 (कुल पाठ्यक्रम की अवधि = 7 घंटे 30 मिनट) के दौरान किया गया।

THIS CERTIFICATE IS

AWARDED TO

DR. BHARATI MOHAPATRA

ON HAVING PARTICIPATED IN THE ONLINE COURSE ON

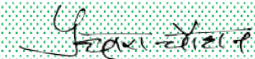
“Geospatial Modelling for Watershed Management”

THIS ONLINE COURSE WAS CONDUCTED DURING **02-08-2021 to 06-08-2021** (Total course duration was = 7 hours and 30 minutes).

Date: 19-08-2021

Place: Dehradun

UID- 58b3cf58c272de8394262414dbf32b27 .This Certificate can be validated using URL- <https://certificate.iirs.gov.in>



निदेशक/ Director

आई.आई.आर.एस, देहरादून/ IIRS, Dehradun



Veer Surendra Sai University of Technology, Odisha
Siddhi Vihar, Burla - 768018

Certificate of Participation

This is to certify that

Mr. N. Sahu

of MME Dept.

has participated in the Five Days inhouse

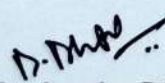
Faculty Development Program (FDP) on Pedagogy.

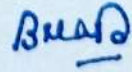
Organized by

Centre for Distance and Continuing Education (CDCE),

Veer Surendra Sai University of Technology, Burla, Odisha

during 23rd-29th November, 2022


Prof. Debabrata Dhupal
Dean, CDCE, VSSUT


Prof. Banshidhar Majhi
Vice Chancellor, VSSUT



SWAYAM ARPIT ONLINE COURSE CERTIFICATION

This Certificate is awarded to

ARUNA KUMAR BARICK

*For successfully completing the ARPIT course for
Career Advancement Scheme(CAS) promotion*

Online Refresher Course In Chemistry For Higher Education

From 1st Dec 2020 to 31st March 2021

With a Grade "C" in the proctored examination held on 21/08/2021

S.G.T.B. Khalsa College, University of Delhi

Authorised Signatory Of Institution (Course Coordinator)
S.G.T.B. Khalsa College, University of Delhi

Authorised Signatory Of AICTE



DEPARTMENT OF CHEMISTRY
VASAVI COLLEGE OF ENGINEERING (A)

ACCREDITED BY NAAC WITH 'A++' GRADE

(Sponsored by VASAVI ACADEMY OF EDUCATION)

(Affiliated to Osmania University, Hyderabad and Approved by A.I.C.T.E.)

9-5-81, Ibrahimbagh, HYDERABAD – 500 031 (Telangana), www.vce.ac.in

FACULTY DEVELOPMENT PROGRAM (Online)

PARTICIPATION CERTIFICATE

This is to certify that Mr./Ms./Dr. ARUNA KUMAR BARICK, Assistant Professor has attended One Week Online Faculty Development Program on “Role of Chemistry in Advanced Engineering Materials (RCAEM-2021)” from 25th - 29th October, 2021 organized by the Department of Chemistry, Vasavi College of Engineering (A), Hyderabad.

Dr. P. Sukanya
Convener

Dr. P. Venugopal
Co- Chairman & Head



Dr. S.V. Ramana
Chairman & Principal

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Published: 29 October 2021

Multiuser Massive MIMO Channel Estimation and BER Analysis Using Convex Combination Based Algorithms

[Madhusmita Sahoo](#) & [Harish Kumar Sahoo](#) 

Wireless Personal Communications **123**, 3025–3049 (2022)

211 Accesses | **2** Citations | [Metrics](#)

Abstract

Massive multiple-input multiple-output (MIMO) employs a large antenna array and is used as a key technology in 5G communication standards. In this work, time-division duplex (TDD) is used for uplink (UL) and downlink (DL) channels as the same bandwidth can be utilized for bidirectional data transfer. This paper proposes a computationally efficient adaptive algorithm based channel estimation model. These models are applicable to multiuser MIMO (MU-MIMO) systems, which are comprised of a large number of channel coefficients.

Channel state information (CSI) is acquired from estimated channel coefficients of the UL channel, and CSI of DL is obtained through channel reciprocity. The dynamic characteristics of MIMO channels are generally sparse in nature, and the degree of sparseness varies over time. Convex combination-based modeling with the introduction of l_0 norm penalty to Least mean squares (LMS) algorithm develops an efficient and stable sparse channel estimation model, which is the most significant contribution of the paper. The research work presented in the paper has simultaneously focused on channel estimation using the convex combination of momentum-fractional LMS approach and equalization for massive MIMO channels. The simulation result exhibits that the proposed method outperforms the existing conventional compressed sensing (CS) based channel estimation. The UL and DL performance of the system was investigated in terms of bit error rate (BER), mean square error (MSE), and channel capacity calculated from estimated CSI.

Access provided by Veer Surendra Sai Univ of Tech

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Certificate No PS-APSSDC-RESMC-3306



CERTIFICATE OF PARTICIPATION



NAME Dr .SASMITA BEHERA

COLLEGE VSSUT

has Successfully Completed
30 Days Renewable Energy Master Class

at Pantech e Learning Pvt Ltd, Chennai

From Oct 17,2021 To Nov 16,2021

M.Malaiappan
Director
Pantech e Learning

Dr. Ravi Gujjala
Chief General Manager (Technical)
APSSDC

Prof. Rama Koti Reddy
Executive Director
APSSDC

N Bangara Raju
Managing Director
APSSDC



In Association With
VTU & AKU

TEQIP-3
Technical Education Quality Improvement Programme



TEQIP-III, BPUT Odisha (ATU)

&

KMBB COLLEGE OF ENGINEERING AND TECHNOLOGY, BHUBANESWAR

Present this

Certificate of Participation
to

Prof. / Dr. / Mr. / Ms. *Sanjib Kumar Nayak*

of VSS UNIVERSITY OF TECHNOLOGY

for his / her active and instrumental participation during the conduct of TEQIP-III, BPUT Odisha (ATU) sponsored One-week Online Short Term Training Program on "Renewable Energy Technology and Applications (RETA-2021)" held during 8th-13th January 2021 in the Department of Mechanical Engineering, KMBB College of Engineering and Technology, Bhubaneswar, Odisha.

Certificate No. -: BPUT/TEQIP-III/KMBB/RETA 2021/027

Dr. Bhabani Prasanna Pattanaik
Convener & Principal,
KMBB CET, Bhubaneswar

Dr. Bijuni Charan Sutar
Coordinator & Dean Academics,
KMBB CET, Bhubaneswar

**3rd short term course on
Corrosion and its Control and Characterization
13 - 17 December, 2021**

Certificate of Participation

This is to certify that

Manila Mallik of Veer Surendra Sai University of Technology, Burla

has successfully completed the 3rd short term course on Corrosion and its Control and Characterization jointly organized by Department of Metallurgical and Materials Engineering and Chemical Engineering Department, National Institute of Technology, Rourkela.

Amalik

Archana Mallik
Course Coordinator



Adhidesh

Adhidesh S Kumawat
Course Coordinator



**SREE BUDDHA COLLEGE OF ENGINEERING, PATTOOR
ALAPPUZHA-690529, KERALA**

**One Week Online Faculty Development Programme
on
BIOFUELS-RECENT TRENDS AND FUTURE PROSPECTS**

Certificate of Participation

This is to certify that

Subhadra Sahoo, Assistant Professor

VSSUT, BURLA Sambalpur

has participated in the

One Week Online Faculty Development Programme

on

BIOFUELS-RECENT TRENDS AND FUTURE PROSPECTS

organized by the Biotechnology & Biochemical Engineering Department from

30th AUGUST - 3rd SEPTEMBER 2021



Dr. Abhinav K Nair
Coordinator

Ms. Shamnamol G K
Coordinator

Ms. Anju Raj
Coordinator

Prof. Meerabai S
Convener

Dr. K Krishnakumar
Principal



National Institute of Technology Rourkela



Certificate of Participation

This is to certify that ***Dr. Manila Mallik*** of ***VSSUT BURLA*** has participated in the SERB-sponsored 2-days virtual mode workshop on “**MECHANICALLY ASSISTED SURFACE TREATMENT**” organized by Department of Metallurgical and Materials Engineering, National Institute of Technology Rourkela, held during **28–29 June 2022.**

Prof. Krishna Dutta
Co-coordinator

Prof. Anindya Basu
Coordinator

NATIONAL INSTITUTE OF TECHNOLOGY MANIPUR



CERTIFICATE OF APPRECIATION



Ref: NITMN/AICTE 21-22/FDP/2022-P047

This is certified that **Dr. Sasmita Behera** of **Veer Surendra Sai University of Technology, Burla** has participated in AICTE sponsored one week Faculty Development Program (FDP) on **“Management of Intellectual Property Uncertainty in Designing and Manufacturing for Electric Vehicle Systems”** organized by Electrical Engineering Department, National Institute of Technology Manipur, held during 21st–25th Feb. 2022.

Dr. Kundan Kumar
Coordinator, EED, NIT Manipur

Dr. Shuma Adhikari
HoD, EED, NIT Manipur

Prof. (Dr.) Rajesh Kumar Bhushan
Dean Academics, NIT Manipur



Madanapalle Institute of Technology and Science (UGC Autonomous Institution)

Affiliated to JNTUA, Ananthapuramu & Approved by AICTE, New Delhi
NAAC Accredited Institution with A+ Grade, NIRF Indian Ranking 2021- Band: 201-250 in the Engineering
Discipline, NBA Accredited -B.Tech (CIVIL, CSE, ECE, EEE, MECH), MBA & MCA



Five Day Workshop on
Artificial Intelligence and Machine Learning with a hands-on Session using
MATLAB (Online-mode)

Certificate of Participation

*This is to certify that **Dr. Sasmita Behera** Of **VSSUT** has participated in the Five-days' workshop on **Artificial Intelligence and Machine Learning with a hands-on Session using MATLAB** (online mode) from 3rd to 7th November 2021 at Department of Electronics and Communication Engineering, Madanapalle Institute of Technology and Science (MITS), Madanapalle, Andhra Pradesh, India.*

Dr. Pradosh Ranjan Sahoo
Workshop Coordinator, MITS

Dr. Soumya Ranjan Mahapatro
Workshop Coordinator, MITS

Dr. S. Rajasekara
HoD, ECE, MITS

Dr. C. Yuvaraj
Principal, MITS



SWAYAM ARPIT ONLINE COURSE CERTIFICATION

This Certificate is awarded to

SUBHADRA SAHOO

*For successfully completing the ARPIT course for
Career Advancement Scheme(CAS) promotion*

Refresher Course on Teacher and Teaching in Higher Education

From 1st Dec 2020 to 31st March 2021

With a Grade "B" in the proctored examination held on 21/08/2021

Savitribai Phule Pune University Pune

Authorised Signatory Of Institution (Course Coordinator)
Savitribai Phule Pune University Pune

Authorised Signatory Of AICTE



e-Certificate of Participation



This is certified that **Prof. Lingaraj Dora** has participated & completed successfully the Online QIP Short Term Course on *Advanced Applications in Signal Processing and Artificial Intelligence* from 6th July to 10th July 2021 at the School of Electrical Sciences, Indian Institute of Technology Bhubaneswar.

Date of issue: 12/07/2021

N. B. Puhan
12-07-2021

S. P. Dash

S. K. Mahapatra

Dr. N. B. Puhan
(Course Coordinator)

Dr. S. P. Dash
(Course Coordinator)

Prof. S. K. Mahapatra
(Dean, Continuing Education)

No: ATAL/2021/1637047915



ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

Nelson Mandela Marg, Vasant Kunj, New Delhi – 110 070

AICTE Training and Learning (ATAL) Academy

Certificate

This is certified that **BIBHUTI PRASAD SAHOO**, Assistant Professor of **Veer Surendra Sai University of Technology** participated & completed successfully AICTE Training And Learning (ATAL) Academy **Online Elementary FDP on "Type-1 and Type-2 Fuzzy Logic and Its Applications"** from **06/12/2021** to **10/12/2021** at **Indian Institute of Information Technology Kota**.

Advisor-I, ATAL Academy
Mamta Rani Agarwal



Coordinator



ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

Nelson Mandela Marg, Vasant Kunj, New Delhi – 110 070

AICTE Training and Learning (ATAL) Academy

Certificate

This is certified that **BIBHUTI PRASAD SAHOO**, Assistant Professor of **Veer Surendra Sai University of Technology** participated & completed successfully AICTE Training And Learning (ATAL) Academy **Online Elementary FDP** on "**Mathematical Modelling and Controller Design for Non-Linear Process**" from **11/10/2021** to **15/10/2021** at **Sree Vidyanikethan Engineering College**.

Advisor-I, ATAL Academy
Mamta Rani Agarwal



Coordinator



NPTEL-AICTE Faculty Development Programme

(Funded by the MoE, Govt. of India)



This certificate is awarded to

SUBHADRA SAHOO

for successfully completing the course

Environmental Degradation and Surface Engineering

with a consolidated score of 69 %

Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras



(Jul-Oct 2022)

Prof. Dileep N. Malkhede
Advisor-I (Research, Institute & Faculty Development)
All India Council for Technical Education

Roll No: NPTEL22MM36S63110110

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

Roll No: NPTEL22ME47S34190018

To BIBHUTI PRASAD SAHOO
QR NO-BF/3, VSSUT STAFF COLONY
FANDI CHAKA
BURLA
ODISHA - 768018
PH. NO :7978509438



Duration of NPTEL course: 8 Weeks

No. of weeks of NPTEL Courses	Equivalence of NPTEL course with regular FDP
4	$\frac{1}{2}$ FDP of one week
8	Full FDP of one week
12	$1\frac{1}{2}$ FDP



NPTEL-AICTE Faculty Development Programme



(Funded by the Ministry of HRD, Govt. of India)

This certificate is awarded to

BIBHUTI PRASAD SAHOO



for successfully completing the course
**Evolutionary Computation for Single and
Multi-Objective Optimization**
with a consolidated score of **68 %**

Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras

(Jan-Mar 2022)

Prof. Dileep N. Makhede
Advisor-I (Research, Institute & Faculty Development)
All India Council for Technical Education

Roll No: NPTEL22ME47S34190018

To validate and check scores: <http://nptel.ac.in/noc>

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

Roll No: NPTEL22MM05S34190026

To RENU PRAVA DALAI
DEPARTMENT OF MME, VSSUT BURLA
DEPARTMENT OF MME, VSSUT BURLA
SAMBALPUR
ODISHA - 768018
PH. NO :9439577301



Duration of NPTEL course: 8 Weeks

No. of weeks of NPTEL Courses	Equivalence of NPTEL course with regular FDP
4	$\frac{1}{2}$ FDP of one week
8	Full FDP of one week
12	$1\frac{1}{2}$ FDP



NPTEL-AICTE Faculty Development Programme



(Funded by the Ministry of HRD, Govt. of India)

This certificate is awarded to

RENU PRAVA DALAI

for successfully completing the course

Materials Science and Engineering

with a consolidated score of **70 %**



Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras

(Jan-Mar 2022)

Prof. Dileep N. Malkhede
Advisor-I (Research, Institute & Faculty Development)
All India Council for Technical Education

Roll No: NPTEL22MM05S34190026

To validate and check scores: <http://nptel.ac.in/noc>

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

Roll No: NPTEL22MM06S14150023

To RENU PRAVA DALAI
DEPARTMENT OF MME, VSSUT BURLA
DEPARTMENT OF MME, VSSUT BURLA
SAMBALPUR
ODISHA - 768018
PH. NO :9439577301



Duration of NPTEL course: 8 Weeks

No. of weeks of NPTEL Courses	Equivalence of NPTEL course with regular FDP
4	$\frac{1}{2}$ FDP of one week
8	Full FDP of one week
12	$1\frac{1}{2}$ FDP



NPTEL-AICTE Faculty Development Programme

(Funded by the MoE, Govt. of India)



This certificate is awarded to

RENU PRAVA DALAI



for successfully completing the course

Properties of Materials (Nature and Properties of Materials : III)

with a consolidated score of **75 %**

Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras

(Feb-Apr 2022)

Prof. Dileep N. Malkhede
Advisor-I (Research, Institute & Faculty Development)
All India Council for Technical Education

Roll No: NPTEL22MM06S14150023

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

Roll No: NPTEL21CS63S44290110

To DR SASMITA ACHARYA
QTR NO C/73
JAGRUTI VIHAR BURLA
SAMBALPUR
ODISHA - 768020
PH. NO :9437230871



Duration of NPTEL course: 12 Weeks

No. of weeks of NPTEL Courses	Equivalence of NPTEL course with regular FDP
4	$\frac{1}{2}$ FDP of one week
8	Full FDP of one week
12	$1\frac{1}{2}$ FDP



NPTEL-AICTE Faculty Development Programme

(Funded by the Ministry of HRD, Govt. of India)



This certificate is awarded to

DR SASMITA ACHARYA

for successfully completing the course

Introduction to Internet of Things

with a consolidated score of **64** %

Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras

(Jul-Oct 2021)

Prof. Dileep N. Malkhede
Advisor-I (Research, Institute & Faculty Development)
All India Council for Technical Education

Roll No: NPTEL21CS63S44290110

To validate and check scores: <http://nptel.ac.in/noc>

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



ଓଡ଼ିଶା ବିଦ୍ୟୁତ୍ ଶକ୍ତି ସଂଚାରଣ ନିଗମ ଲିଡ.

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PO:Burla,Dist:Sambalpur-768017

E-mail:ehm.div.brl@optcl.co.in

Letter No. EHTD/ 393

Date: 16, 06, 2022.

TO WHOM IT MAY CONCERN

This is to certify that **Sri Bibhuti Prasad Sahoo**, Asst. Professor, Department of Electrical & Electronics Engineering of **Veer Surendra Sai University Of Technology, Burla** has successfully undergone Industrial training on “**Transmission System**” for a period of 15days from Dt. 23.05.2022 to 06.06.2022 at 220/132/33KV GRID SUB-STATION, KATAPALI & 132/33 KV GRID SUB-STATION, SAMBALPUR under EHT(O&M) Division,OPTCL, Burla.

OPTCL

Lifeline of Odisha

Handwritten signature and date: 16/6/22

DEPUTY GENERAL MANAGER (ELE.)

EHT(O&M) DIVISION, BURLA

Deputy General Manager (El.)
EHT (O&M) Division OPTCL Burla

This certificate is computer generated and can be verified by scanning the QR code given below. This will display the certificate from the NPTEL repository, <https://nptel.ac.in/noc/>

Roll No: NPTEL21MM04S12250036

To
SUBHADRA SAHOO
DEPARTMENT OF MME VSSUT BURLA
SAMBALPUR-768018
SAMBALPUR
ORISSA - 768018
PH. NO :8763520224



Score	Type of Certificate
>=90	Elite+Gold
75-89	Elite+Silver
>=60	Elite
40-59	Successfully Completed
<40	No Certificate

No. of credits recommended by NPTEL:2

An additional 1 credit may be awarded if the University deems it fit, based on the actual student effort involved.



Elite

NPTEL Online Certification

(Funded by the Ministry of HRD, Govt. of India)



This certificate is awarded to

SUBHADRA SAHOO

for successfully completing the course

Materials Science and Engineering

with a consolidated score of **60** %

Online Assignments	20.71/25	Proctored Exam	39.02/75
--------------------	----------	----------------	----------

Total number of candidates certified in this course: **88**

Prof. V. C. Srivastava
Coordinator, Continuing Education Centre
IIT Roorkee

Jan-Mar 2021
(8 week course)

Prof. Inderdeep Singh
NPTEL Coordinator
IIT Roorkee



Indian Institute of Technology Roorkee



Roll No:NPTEL21MM04S12250036

To validate and check scores: <https://nptel.ac.in/noc>

This certificate is computer generated and can be verified by scanning the QR code given below. This will display the certificate from the NPTEL repository, <https://nptel.ac.in/noc/>

Roll No: NPTEL21MM24S14290029

To
MANILA MALLIK
HOUSE NO.303C,KOSHAL PRESTIGE APARTMENT
SOURAV BIHAR,BURLA-768018
SAMBALPUR
INDIA - 768018
PH. NO :9437261616



Score	Type of Certificate
>=90	Elite+Gold
75-89	Elite+Silver
>=60	Elite
40-59	Successfully Completed
<40	No Certificate

No. of credits recommended by NPTEL:3

An additional 1 credit may be awarded if the University deems it fit, based on the actual student effort involved.



TOPPER

Elite

NPTEL Online Certification

(Funded by the Ministry of HRD, Govt. of India)



This certificate is awarded to

MANILA MALLIK

for successfully completing the course



X-ray Crystallography & Diffraction

with a consolidated score of **90** %

Online Assignments	19.1/25	Proctored Exam	70.5/75
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Total number of candidates certified in this course: **10**

Devendra Jalihal

Prof. Devendra Jalihal
Chairman
Centre for Continuing Education, IITM

Jul-Oct 2021
(12 week course)

Prof. Andrew Thangaraj

Prof. Andrew Thangaraj
NPTEL, Coordinator
IIT Madras



Indian Institute of Technology Madras



Roll No:NPTEL21MM24S14290029

To validate and check scores: <https://nptel.ac.in/noc>

This certificate is computer generated and can be verified by scanning the QR code given below. This will display the certificate from the NPTEL repository, <https://nptel.ac.in/noc/>

Roll No: NPTEL21MM18S44290084

To
MANILA MALLIK
HOUSE NO.303C,KOSHAL PRESTIGE APARTMENT
SOURAV BIHAR,BURLA-768018
SAMBALPUR
INDIA - 768018
PH. NO :9437261616



Score	Type of Certificate
>=90	Elite+Gold
75-89	Elite+Silver
>=60	Elite
40-59	Successfully Completed
<40	No Certificate

No. of credits recommended by NPTEL:3

An additional 1 credit may be awarded if the University deems it fit, based on the actual student effort involved.



Elite

NPTEL Online Certification

(Funded by the Ministry of HRD, Govt. of India)



This certificate is awarded to

MANILA MALLIK

for successfully completing the course



Techniques of Material Characterization

with a consolidated score of **82** %

Online Assignments	18.16/25	Proctored Exam	63.75/75
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Total number of candidates certified in this course: **46**

Prof. G P Raja Sekhar
Dean, Continuing Education
IIT Kharagpur

Jul-Oct 2021
(12 week course)

Prof. Debjani Chakraborty
Coordinator, NPTEL
IIT Kharagpur



Indian Institute of Technology Kharagpur



Roll No:NPTEL21MM18S44290084

To validate and check scores: <https://nptel.ac.in/noc>

Roll No: NPTEL22EE31S24150063

To BIBHUTI PRASAD SAHOO
QR NO-BF/3, VSSUT STAFF COLONY
FANDI CHAKA
BURLA
ODISHA - 768018
PH. NO :7978509438



Duration of NPTEL course: 12 Weeks

No. of weeks of NPTEL Courses	Equivalence of NPTEL course with regular FDP
4	$\frac{1}{2}$ FDP of one week
8	Full FDP of one week
12	$1\frac{1}{2}$ FDP



NPTEL-AICTE Faculty Development Programme

(Funded by the MoE, Govt. of India)



This certificate is awarded to

BIBHUTI PRASAD SAHOO

for successfully completing the course

Control Engineering

with a consolidated score of **51 %**



Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras

(Jan-Apr 2022)

Prof. Dileep N. Malkhede
Advisor-I (Research, Institute & Faculty Development)
All India Council for Technical Education

Roll No: NPTEL22EE31S24150063

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

No:ATAL/2021/1623754737



ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

Nelson Mandela Marg, Vasant Kunj, New Delhi – 110 070

AICTE Training And Learning (ATAL) Academy

Certificate

This is certified that **SUNITA SINGH NAIK**, Assistant Professor of **VSSUT** participated & completed successfully AICTE Training And Learning (ATAL) Academy **Online Elementary** FDP on "**Classical Optimization Techniques in Manufacturing systems**" from **2021-07-05** to **2021-07-09** at **GURU NANAK INSTITUTIONS TECHNICAL CAMPUS TELANGANA**.

Adviser-I, ATAL Academy



Coordinator



CERTIFICATE OF PARTICIPATION

This certificate is awarded to

Mrs. Sunita Singh Naik

*of **Veer Surendra Sai University of Technology, Burla** in recognition of his/her participation and completion of **Live Industrial Training on ANSYS Software** organised by EnFlare Technologies from **16th-25th August, 2021***

A handwritten signature in black ink, appearing to read "Venkata Sarath Panathula".

Venkata Sarath Panathula

Co-Founder & CTO, EFT



25th August, 2021

Date

No: ATAL/2021/1637039589



ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

Nelson Mandela Marg, Vasant Kunj, New Delhi – 110 070

AICTE Training and Learning (ATAL) Academy

Certificate

This is certified that **JANAKI DEHURY**, Assistant Professor of **VSSUT** participated & completed successfully AICTE Training And Learning (ATAL) Academy **Online Elementary FDP** on "**Artificial Intelligence and Machine Learning**" from **22/11/2021** to **26/11/2021** at **Veer Surendra Sai University of Technology (VSSUT) Odisha**.

Advisor-I, ATAL Academy
Mamta Rani Agarwal



Coordinator

No: ATAL/2021/1636645933



ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

Nelson Mandela Marg, Vasant Kunj, New Delhi – 110 070

AICTE Training and Learning (ATAL) Academy

Certificate

This is certified that **Debasmita Mishra**, Assistant Professor of **Veer Surendra Sai University of Technology, Burla** participated & completed successfully AICTE Training And Learning (ATAL) Academy **Online Elementary FDP** on "**Artificial Intelligence and Machine Learning**" from **22/11/2021** to **26/11/2021** at **Veer Surendra Sai University of Technology (VSSUT) Odisha**.

Advisor-I, ATAL Academy
Mamta Rani Agarwal



Coordinator

No: ATAL/2021/1637039780



ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

Nelson Mandela Marg, Vasant Kunj, New Delhi – 110 070

AICTE Training and Learning (ATAL) Academy

Certificate

This is certified that **Debasmita Mishra**, Assistant Professor of **Veer Surendra Sai University of Technology, Burla** participated & completed successfully AICTE Training And Learning (ATAL) Academy **Online Elementary FDP** on "**Recent Advancement in Manufacturing Processing**" from **27/12/2021** to **31/12/2021** at **Veer Surendra Sai University of Technology**.

Advisor-I, ATAL Academy
Mamta Rani Agarwal



Coordinator



CERTIFICATE OF PARTICIPATION

This certificate is awarded to

Dr. Debasmita Mishra

*of **Veer Surendra Sai University of Technology, Burla** in recognition of his/her participation and completion of **Live Industrial Training on ANSYS Software** organised by EnFlare Technologies from **16th-25th August, 2021***

A handwritten signature in black ink, appearing to read "Venkata Sarath Panathula".

Venkata Sarath Panathula

Co-Founder & CTO, EFT



25th August, 2021

Date



CERTIFICATE OF PARTICIPATION

This certificate is awarded to

Dr. Debasmita Mishra

*of **Veer Surendra Sai University of Technology, Burla** in recognition of his/her participation and completion of **Live Industrial Training on ANSYS Software** organised by EnFlare Technologies from **16th-25th August, 2021***

A handwritten signature in black ink, appearing to read "Venkata Sarath Panathula".

Venkata Sarath Panathula

Co-Founder & CTO, EFT



25th August, 2021

Date

Certificate ID: EFTIND055

Certificate No. ATAL/2022/1641222295



ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

Nelson Mandela Marg, Vasant Kunj, New Delhi – 110 070

AICTE Training And Learning (ATAL) Academy



Certificate of Appreciation

This is certified that Dr. Debasmita Mishra, Assistant Professor of Veer Surendra Sai University of Technology, Burla, ODISHA has successfully coordinated ATAL Online Faculty Development Programme on "Novel Materials, Fabrication, Design & Optimization" from 20/09/2021 to 24/09/2021.

Adviser-I, ATAL Academy



ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

Nelson Mandela Marg, Vasant Kunj, New Delhi – 110 070

AICTE Training and Learning (ATAL) Academy

Certificate

This is certified that **JANAKI DEHURY**, Assistant Professor of **VSSUT** participated & completed successfully AICTE Training And Learning (ATAL) Academy **Online Elementary** FDP on "**Novel Materials, Fabrication, Design & Optimization**" from **20/09/2021** to **24/09/2021** at **Veer Surendra Sai University of Technology, Burla**.

Advisor-I, ATAL Academy
Mamta Rani Agarwal



Coordinator

No: ATAL/2021/1637039626



ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

Nelson Mandela Marg, Vasant Kunj, New Delhi – 110 070

AICTE Training and Learning (ATAL) Academy

Certificate

This is certified that **JANAKI DEHURY**, Assistant Professor of **VSSUT** participated & completed successfully AICTE Training And Learning (ATAL) Academy **Online Elementary** FDP on "**Recent Advancement in Manufacturing Processing**" from **27/12/2021** to **31/12/2021** at **Veer Surendra Sai University of Technology**.

Advisor-I, ATAL Academy
Mamta Rani Agarwal



Coordinator

No: ATAL/2021/1636634743



ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

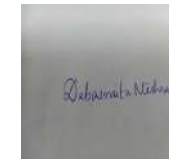
Nelson Mandela Marg, Vasant Kunj, New Delhi – 110 070

AICTE Training and Learning (ATAL) Academy

Certificate

This is certified that **Dr. Debasmita Mishra**, Assistant Professor, Department Of Mechanical Engi of **Veer Surendra Sai University of Technology,Burla** contributed as **Resource Person** in AICTE Training And Learning (ATAL) Academy **Online Elementary FDP** on "**Novel Materials, Fabrication, Design & Optimization**" from **20/09/2021** to **24/09/2021** at **Veer Surendra Sai University of Technology,Burla** .

Advisor-I, ATAL Academy
Mamta Rani Agarwal



Coordinator

No:ATAL/2021/1623755066



ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

Nelson Mandela Marg, Vasant Kunj, New Delhi – 110 070

AICTE Training And Learning (ATAL) Academy

Certificate

This is certified that **SUNITA SINGH NAIK**, Assistant Professor of **VSSUT, Burla , Sambalpur** participated & completed successfully AICTE Training And Learning (ATAL) Academy **Online Elementary FDP** on "**Advances in Manufacturing**" from **2021-7-26** to **2021-7-30** at **Sardar Vallabhbhai National Institute of Technology**.

Adviser-I, ATAL Academy



Coordinator