The Zenith

May 01, 2021

Volume 4, Issue 3

Contents:

Fully recyclable printed electronics developed (2)

Expert Lecture/Seminars/Industrial Visits Organized (4)

Industrial Training / Seminar/Workshop done by Staff (4)

Coursera Certification by Staff (6)

Udemy Courses Developed by Staff (10)

Students Achievement (10)

Online Felicitation Program (14)

Fully Recyclable Printed Electronics Developed

Engineers at Duke University have developed the world's first fully recyclable printed electronics. By demonstrating a crucial and relatively complex computer component -- the transistor -- created with three carbon-based inks, the researchers hope to inspire a new generation of recyclable electronics to help fight the growing global epidemic of electronic waste.

The work appears online April 26 in the journal Nature Electronics.

"Silicon-based computer components are probably never going away, and we don't expect easily recyclable electronics like ours to replace the technology and devices that are already widely used," said Aaron Franklin, the Addy Professor of Electrical and Computer Engineering at Duke. "But we hope that by creating new, fully recyclable, easily printed electronics and showing what they can do, that they might become widely used in future applications."

As people worldwide adopt more electronics into their lives, there's an ever-growing pile of discarded devices that either don't work anymore or have been cast away in favor of a newer model. According to a United Nations estimate, less than a quarter of the millions of pounds of electronics thrown away each year is recycled. And the problem is only going to get worse as the world upgrades to 5G devices and the Internet of Things (IoT) continues to expand.

Part of the problem is that electronic devices are difficult to recycle. Large plants employ hundreds of workers who hack at bulky devices. But while scraps of copper, aluminum and steel can be recycled, the silicon chips at the heart of the devices cannot.

In the new study, Franklin and his laboratory demonstrate a completely recyclable, fully functional transistor made out of three carbon-based inks that can be easily printed onto paper or other flexible, environmentally friendly surfaces. Carbon nanotubes and graphene inks are used for the semiconductors and conductors, respectively. While these materials are not new to the world of printed electronics, Franklin says, the path to recyclability was opened with the development of a wood-derived insulating dielectric ink called nanocellulose.

"Nanocellulose is biodegradable and has been used in applications like packaging for years," said Franklin. "And while people have long known about its potential applications as an insulator in electronics, nobody has figured out how to use it in a printable ink before. That's one of the keys to making these fully recyclable devices functional."

The researchers developed a method for suspending crystals of nanocellulose that were extracted from wood fibers that -- with the sprinkling of a little table salt -- yields an ink that performs admirably as an insulator in their printed transistors. Using the three inks in an aerosol jet printer at room temperature,

the team shows that their all-carbon transistors perform well enough for use in a wide variety of applications, even six months after the initial printing.

The team then demonstrates just how recyclable their design is. By submerging their devices in a series of baths, gently vibrating them with sound waves and centrifuging the resulting solution, the carbon nanotubes and graphene are sequentially recovered with an average yield of nearly 100%. Both materials can then be reused in the same printing process while losing very little of their performance viability. And because the nanocellulose is made from wood, it can simply be recycled along with the paper it was printed on.

Compared to a resistor or capacitor, a transistor is a relatively complex computer component used in devices such as power control or logic circuits and various sensors. Franklin explains that, by demonstrating a fully recyclable, multifunctional printed transistor first, he hopes to make a first step toward the technology being commercially pursued for simple devices. For example, Franklin says he could imagine the technology being used in a large building needing thousands of simple environmental sensors to monitor its energy use or customized biosensing patches for tracking medical conditions.

"Recyclable electronics like this aren't going to go out and replace an entire half-trillion-dollar industry by any means, and we're certainly nowhere near printing recyclable computer processors," said Franklin. "But demonstrating these types of new materials and their functionality is hopefully a stepping stone in the right direction for a new type of electronics lifecycle."

This work was supported by the Department of Defense Congressionally Directed Medical Research Program (W81XWH-17-2-0045), the National Institutes of Health (1R01HL146849) and the Air Force Office of Scientific Research (FA9550-18-1-0222).

Source: Duke University
www.sciencedaily.com

Expert Lecture/Seminars/Courses/Industrial Visits Organized

- Webinar was conducted on “Mock Interview Session for Campus Placement” by Ms. Shreya Chaudhari, system engineer, Infosys ltd. Pune on 13th March 2021

Industrial Training / Seminar/Workshop done by Staff

- Dr. S. A. Patil (Ugale) and Mrs. M. P. Joshi have attended webinar on “VLSI System-On-Chip Design” on 20th March 2021.

- Mrs. V. R. Lele has attended webinar on Liver Health on Occasion of “World Liver Day” on 19th April 2021

G H RAISONI UNIVERSITY
NATIONAL SERVICE SCHEME (NSS)
SCHOOL OF PHARMACY
Gram Dhoda Borgaon, Saikheda, Tehsil. Saunsar,
Dist. Chhindwara (M. P) 480337

Presents E1VU7U-CE000728

International Webinar on Liver Health on Occasion of
"WORLD LIVER DAY"April 19th, 2021

Certificate

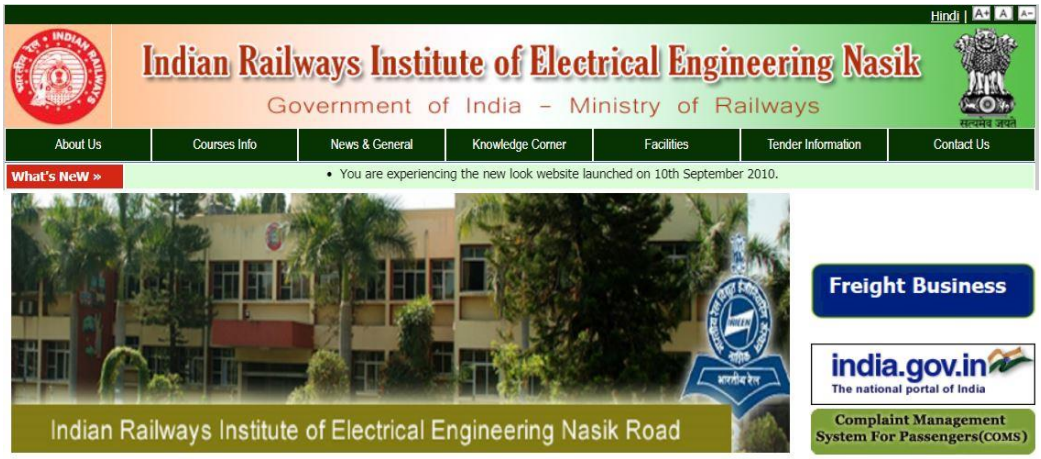
This is to certify that Prof. / Dr. / Ms./Mr. Vaishali Rajeev Lele
School / College / University/ Department E&TC dept, KKWIEER, Nashik
has participated in the International webinar on Liver Health on occasion of "WORLD LIVER DAY" held on April 19th 2021, Organized by G H Raisoni University, National Service Scheme, School of Pharmacy, Madhya Pradesh, Saikheda.

Dr. Nilesh Rarokar
NSS Coordinator, GHRU Saikheda
Co- Convener

Dr. Lalchand Devhare
NSS Head GHRU Saikheda
Convener

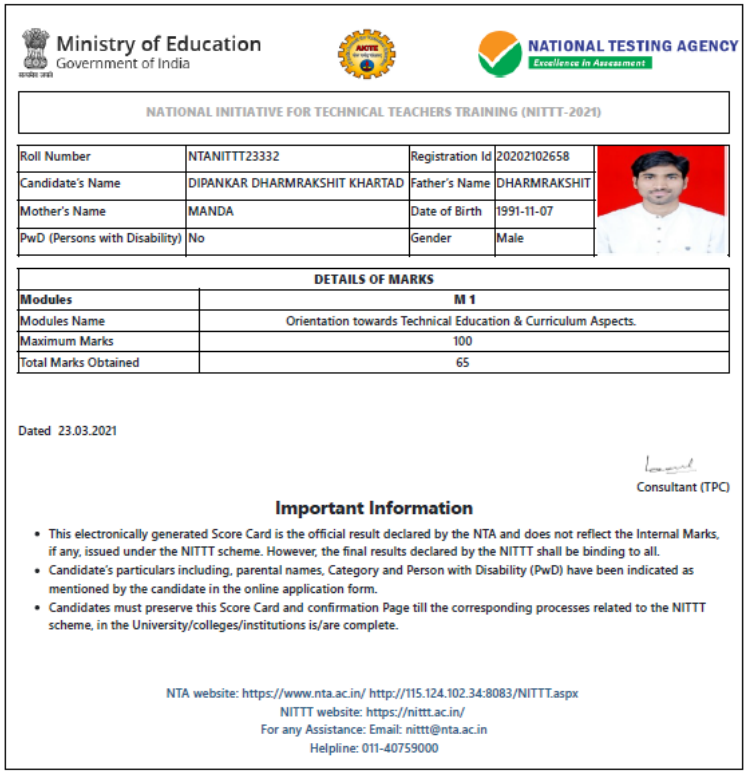
Dr. Meena Rajesh
Vice Chancellor
GHRU Saikheda

- The following staff member was the resource person for various sessions at Indian Railways Institute of Electrical Engineering, Nashik on 27th April to 29th April 2021.



Sr. No.	Name of Staff	Topic
1.	Prof. Dr. D. M. Chandwadkar	Advance Features of Microsoft Word
2.		Advance Features of Microsoft Power Point
3.	Dr. S. A. Patil (Ugale)	Basics of Microsoft Excel
4.		Advance Features of Microsoft Excel-I
5.		Advance Features of Microsoft Excel-II
6.	Mr. K. S. Navale	Semiconductor Switches, IGBT, GTO, Rectifier & Inverters
7.		PWM Techniques & Electrical Drives-I
8.		PWM Techniques & Electrical Drives-II

- Mr. D. D. Khartad has completed module 1 course on “Orientation towards Technical Education & Curriculum Aspects” with the score of 65% organized by National Initiative for Technical Teachers Training, Ministry of Education Govt. of India.



Ministry of Education
Government of India

NATIONAL TESTING AGENCY
Excellence in Assessment

NATIONAL INITIATIVE FOR TECHNICAL TEACHERS TRAINING (NITTT-2021)

Roll Number	NTANITTT23332	Registration Id	20202102658
Candidate's Name	DIPANKAR DHARMRAKSHIT KHARTAD	Father's Name	DHARMRAKSHIT
Mother's Name	MANDA	Date of Birth	1991-11-07
PwD (Persons with Disability)	No	Gender	Male

DETAILS OF MARKS

Modules	M 1
Modules Name	Orientation towards Technical Education & Curriculum Aspects.
Maximum Marks	100
Total Marks Obtained	65

Dated 23.03.2021

Consultant (TPC)

Important Information

- This electronically generated Score Card is the official result declared by the NTA and does not reflect the Internal Marks, if any, issued under the NITTT scheme. However, the final results declared by the NITTT shall be binding to all.
- Candidate's particulars including, parental names, Category and Person with Disability (PwD) have been indicated as mentioned by the candidate in the online application form.
- Candidates must preserve this Score Card and confirmation Page till the corresponding processes related to the NITTT scheme, in the University/colleges/institutions is/are complete.

NTA website: https://www.nta.ac.in/ http://115.124.102.34:8083/NITTT.aspx
NITTT website: https://nittt.ac.in/
For any Assistance: Email: nittt@nta.ac.in
Helpline: 011-40759000

Coursera Certification by Staff

coursera project network

COURSE CERTIFICATE

Kailas Shankarrao Holkar

has successfully completed

Initiation à Google Drive

an online non-credit course authorized by Coursera Project Network and offered through Coursera

coursera

UNIVERSITY OF MICHIGAN

COURSE CERTIFICATE

Rupaliben Vilas Chothe

has successfully completed

Programming for Everybody (Getting Started with Python)

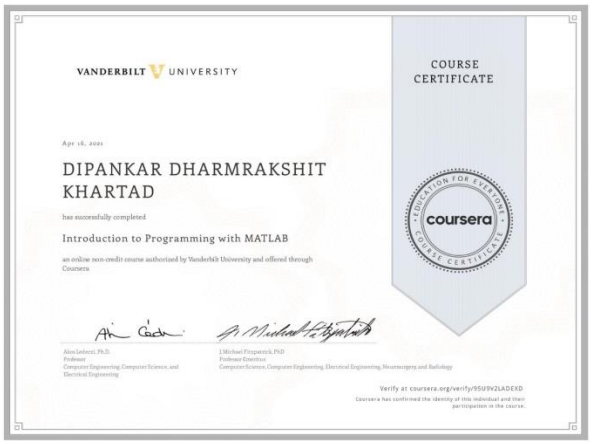
an online non-credit course authorized by University of Michigan and offered through Coursera

coursera

coursera project network
COURSE CERTIFICATE
NIKHIL MADHAVRAO BHUJBAL
has successfully completed
Create a Resume and Cover Letter with Google Docs
an online non-credit course authorized by Coursera Project Network and offered through Coursera
Alvin Marquez
Subject Matter Expert
coursera

coursera project network
COURSE CERTIFICATE
Shraddha Vitthal Shelke
has successfully completed
Create a Resume and Cover Letter with Google Docs
an online non-credit course authorized by Coursera Project Network and offered through Coursera
Alvin Marquez
Subject Matter Expert
coursera

coursera project network
COURSE CERTIFICATE
ANSARI SHARIQUE JAMAL
has successfully completed
Initiation à Google Drive
an online non-credit course authorized by Coursera Project Network and offered through Coursera
coursera

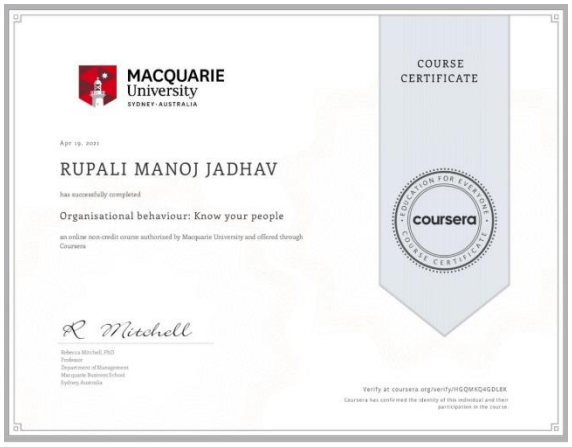

VANDERBILT UNIVERSITY
COURSE CERTIFICATE
DIPANKAR DHARMRAKSHIT KHARTAD
has successfully completed
Introduction to Programming with MATLAB
an online non-credit course authorized by Vanderbilt University and offered through Coursera
coursera

coursera project network
COURSE CERTIFICATE
PUJA PRAKASH PATIL
has successfully completed
Improving Math Engagement with Prodigy
an online non-credit course authorized by Coursera Project Network and offered through Coursera
coursera

Georgia Institute of Technology
COURSE CERTIFICATE
Mrunal Marathe
has successfully completed
Write Professional Emails in English
an online non-credit course authorized by Georgia Institute of Technology and offered through Coursera
coursera

Georgia Institute of Technology
COURSE CERTIFICATE
Rohini Vikas Daund
has successfully completed
Write Professional Emails in English
an online non-credit course authorized by Georgia Institute of Technology and offered through Coursera
coursera

coursera project network
COURSE CERTIFICATE
Sandeep Motiram Shinde
has successfully completed
Initiation à Google Drive
an online non-credit course authorized by Coursera Project Network and offered through Coursera
coursera

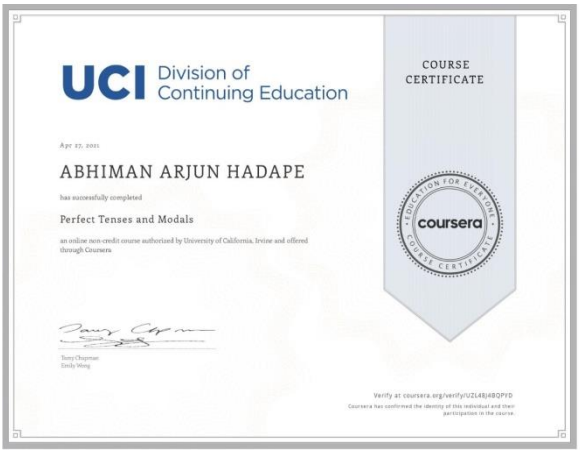

MACQUARIE University
SYDNEY·AUSTRALIA
COURSE CERTIFICATE
Apr 19, 2021
RUPALI MANOJ JADHAV
has successfully completed
Organisational behaviour: Know your people
an online non-credit course authorized by Macquarie University and offered through Coursera
coursera

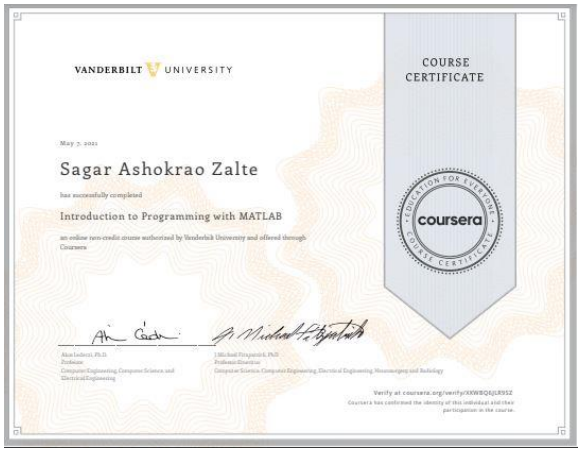
coursera project network
COURSE CERTIFICATE
Apr 12, 2021
Lalita Nathu Chaudhari
has successfully completed
Improving Math Engagement with Prodigy
an online non-credit course authorized by Coursera Project Network and offered through Coursera
coursera

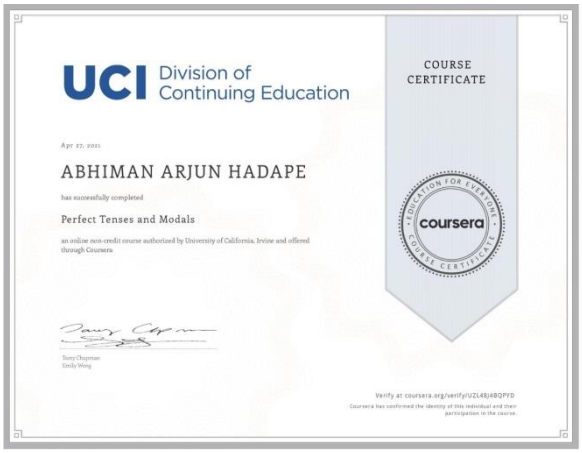
coursera project network
COURSE CERTIFICATE
17 Apr, 2021
Keshav Ramnath Dhikale
has successfully completed
Initiation à Google Drive
an online non-credit course authorized by Coursera Project Network and offered through Coursera
coursera

coursera project network
COURSE CERTIFICATE
Apr 30, 2021
Jagruti Ramchandra Shinde
has successfully completed
Initiation à Google Drive
an online non-credit course authorized by Coursera Project Network and offered through Coursera
coursera

intel
COURSE CERTIFICATE
May 5, 2021
Nirmalakumari Kaithi
has successfully completed
Introduction to OpenCL on FPGAs
an online non-credit course authorized by Intel and offered through Coursera
coursera


UCI Division of Continuing Education
COURSE CERTIFICATE
Apr 27, 2021
ABHIMAN ARJUN HADAPE
has successfully completed
Perfect Tenses and Modals
an online non-credit course authorized by University of California, Irvine and offered through Coursera
coursera


VANDERBILT UNIVERSITY
COURSE CERTIFICATE
May 7, 2021
Sagar Ashokrao Zalte
has successfully completed
Introduction to Programming with MATLAB
an online non-credit course authorized by Vanderbilt University and offered through Coursera
coursera


UCI Division of Continuing Education
COURSE CERTIFICATE
Apr 27, 2021
ABHIMAN ARJUN HADAPE
has successfully completed
Perfect Tenses and Modals
an online non-credit course authorized by University of California, Irvine and offered through Coursera
coursera

- Staff has completed various courses on coursera.

Sr. No	Name of Staff	Course Name
1.	Dr. K. S. Holkar	Initiation à Google Drive
2.		Self-Awareness and the Effective Leader
3.	Mrs. R. V. Chothe	Programming for Everybody (Getting Started with Python)
4.	Mr. N. M. Bhujbal	Create a Resume and cover letter with Google docs
5.		Performance review with Eduflow
6.	Mrs. S. V. Shelke	Initiation to a Google drive
7.		Create a Resume and Cover Letter with Google Docs
8.	Mr. S. S. Ansari	Speak English Professionally: In Person, Online & On the Phone
9.	Mr. D. D. Khartad	Introduction to programming with MATLAB
10.	Mrs. P. P. Patil	Improving Math Engagement with Prodigy
11.		Initiation to a Google Drive
12.	Mrs. K. Nirmalakumari	Introduction to OpenCL on FPGAs
13.		Initiation to a Google Drive
14.	Mr. S. A. Zalte	Introduction to programming with MATLAB
15.	Ms. J. R. Shinde	Speak English Professionally: In Person, Online & On the Phone
16.		Initiation to a Google Drive
17.	Ms. M. V. Marathe	Write professional emails in English

18.		Mindshift: Break Through Obstacles to Learning and Discover Your Hidden Potential
19.	Ms. Rohini Daund	Improve your English communication skills
20.	Mr. Abhiman A. Hadape	Grammar and Punctuation
21.		Perfect Tenses and Modals
22.	Mr. Sandip M. Shinde	Initiation a Google Drive
23.		Tracking Student Growth using Google Slides
24.	Mrs. Rupali M. Jadhav	Organizational behavior: Know your people
25.		Initiation a Google Drive
26.	Mrs. Lalita N. Chaudhari	Initiation a Google Drive
27.		Improving Math Engagement and Prodigy
28.	Mr. Keshav R. Dhikale	Initiation a Google Drive

Udemy Courses Developed by Staff

- Staff has developed and uploaded different courses on Udemy platform

Sr. No.	Name of Staff	Name of Course	Link
1.	Mr. D. D. Khartad	Hands-on Arduino using Online Platform	https://www.udemy.com/course/hands-on-arduino-using-online-platform/
2.	Mr. S. A. Zalte	Design and implementation of combinational logic circuits	https://www.udemy.com/course/design-and-implementation-of-combinational-logic-circuits/

Students Achievement

- Mr. Aniket Arya, student of BE Electronics has received the vouchers worth 67$ for being top scorers in MooC for Embedded System Design using MSP430™ MCU. The voucher was awarded by Texas Instrument, India.

Elite

NPTEL Online Certification

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

This certificate is awarded to

ANIKET ARYA

for successfully completing the course

Introduction to Embedded System Design

with a consolidated score of 72 %

Online Assignments	24.28/25	Proctored Exam	48/75

Total number of candidates certified in this course: 1371

Prof. Devendra Jalihal
Chairman
Centre for Continuing Education, IITM

Sep-Dec 2020
(12 week course)

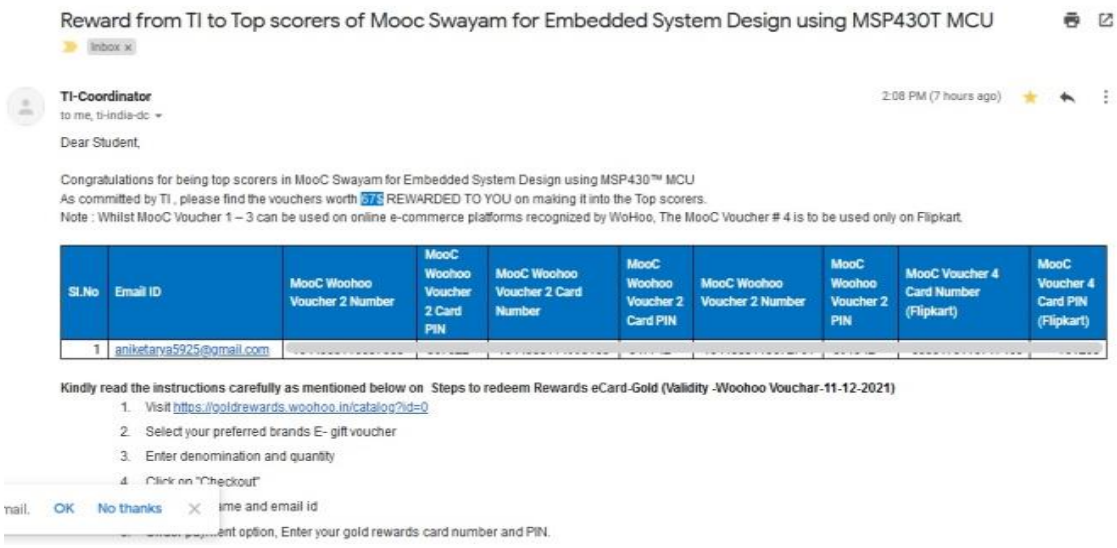
Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras

Indian Institute of Technology Madras

swayam

Roll No: NPTEL20EE98S72050109

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



Reward from TI to Top scorers of Mooc Swayam for Embedded System Design using MSP430T MCU

Inbox ×

TI-Coordinator
to me, ti-india-dc

2:08 PM (7 hours ago)

Dear Student,

Congratulations for being top scorers in MooC Swayam for Embedded System Design using MSP430™ MCU
As committed by TI , please find the vouchers worth 575 REWARDED TO YOU on making it into the Top scorers.
Note : Whilst MooC Voucher 1 – 3 can be used on online e-commerce platforms recognized by WoHoo, The MooC Voucher # 4 is to be used only on Flipkart.

Sl.No	Email ID	MooC Woohoo Voucher 2 Number	MooC Woohoo Voucher 2 Card PIN	MooC Woohoo Voucher 2 Card Number	MooC Woohoo Voucher 2 Card PIN	MooC Woohoo Voucher 2 Number	MooC Woohoo Voucher 2 PIN	MooC Voucher 4 Card Number (Flipkart)	MooC Voucher 4 Card PIN (Flipkart)
1	aniketarya5925@gmail.com								

Kindly read the instructions carefully as mentioned below on Steps to redeem Rewards eCard-Gold (Validity -Woohoo Vouchar-11-12-2021)

1. Visit https://goldrewards.woohoo.in/catalog?id=0
2. Select your preferred brands E- gift voucher
3. Enter denomination and quantity
4. Click on "Checkout"

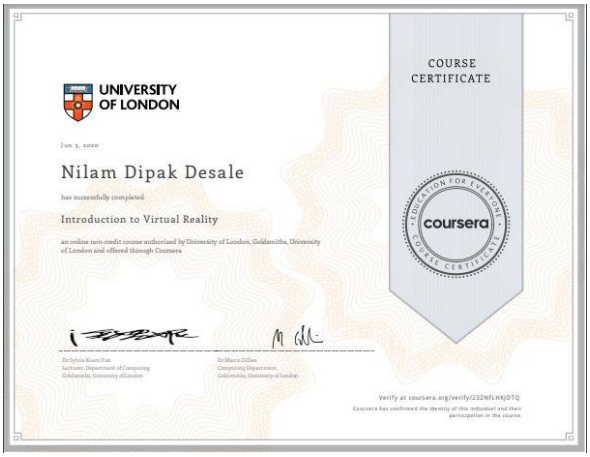
nail. OK No thanks ime and email id

ent option, Enter your gold rewards card number and PIN.

- Students have completed various courses on coursera.

Sr. No	Name of Student	Class	Course Name
1.	Surse Gaurav Digamber	SE E&TC	Introduction To Web Development
2.			Programming for Everybody (Getting Started with Python)
3.	Kohli Gurkiratsingh Surjeetsingh	SE E&TC	Programming for Everybody (Getting Started with Python)
4.			Creative Writing: The Craft of Setting and Description
5.			Capstone: Your Story
6.			Creative Writing: The Craft of Plot
7.	Rajput Samiksha Rajendra	TE Electronics	Cloud Computing Basics (Cloud 101)
8.			Project Management
9.			How To Create a Website in a Weekend! (Project-

			Centered Course)
10.	Nikum Radhika Rajendra	BE E&TC	Introduction to Psychology
11.			Marketing and Sales
12.	Desale Nilam Dipak	BE Electronics	Introduction to Virtual Reality
13.			Programming For Everybody (Getting Started With Python)
14.			Introduction to HTML5
15.			Renewable Energy And Green Building Entrepreneurship



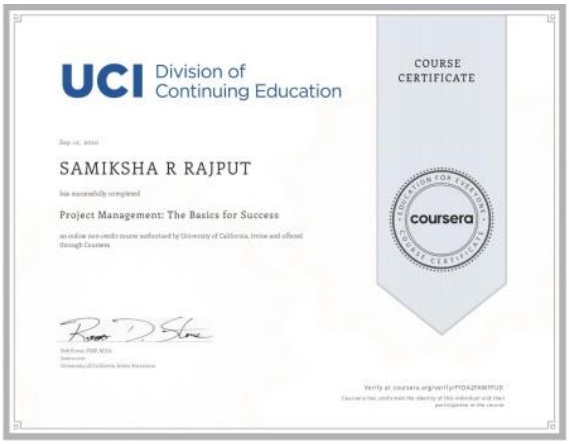
UNIVERSITY OF MICHIGAN
COURSE CERTIFICATE
Jul 3, 2020
Nilam Dipak Desale
has successfully completed
Programming for Everybody (Getting Started with Python)
an online non-credit course authorized by University of Michigan and offered through Coursera
Charles Severance
Clinical Professor, School of Information
University of Michigan
coursera

Duke UNIVERSITY
COURSE CERTIFICATE
Aug 31, 2020
Nilam Dipak Desale
has successfully completed
Renewable Energy and Green Building Entrepreneurship
an online non-credit course authorized by Duke University and offered through Coursera
coursera

SUNY The State University of New York
COURSE CERTIFICATE
Aug 31, 2020
SAMIKSHA R RAJPUT
has successfully completed
How To Create a Website in a Weekend! (Project-Centered Course)
an online non-credit course authorized by The State University of New York and offered through Coursera
coursera

UNIVERSITY OF MICHIGAN
COURSE CERTIFICATE
Jul 29, 2020
Nilam Dipak Desale
has successfully completed
Introduction to HTML5
an online non-credit course authorized by University of Michigan and offered through Coursera
Colleen van Lent
Lecturer
School of Information, University of Michigan
Charles Severance
Clinical Professor, School of Information
University of Michigan
coursera

COURSE CERTIFICATE
Nov 9, 2020
Radhika Nikum
has successfully completed
Business English: Marketing and Sales
an online non-credit course authorized by Arizona State University and offered through Coursera
coursera


UCI Division of Continuing Education
COURSE CERTIFICATE
SAMIKSHA R RAJPUT
has successfully completed
Project Management: The Basics for Success
an online non-credit course authorized by University of California, Irvine and offered through Coursera
coursera

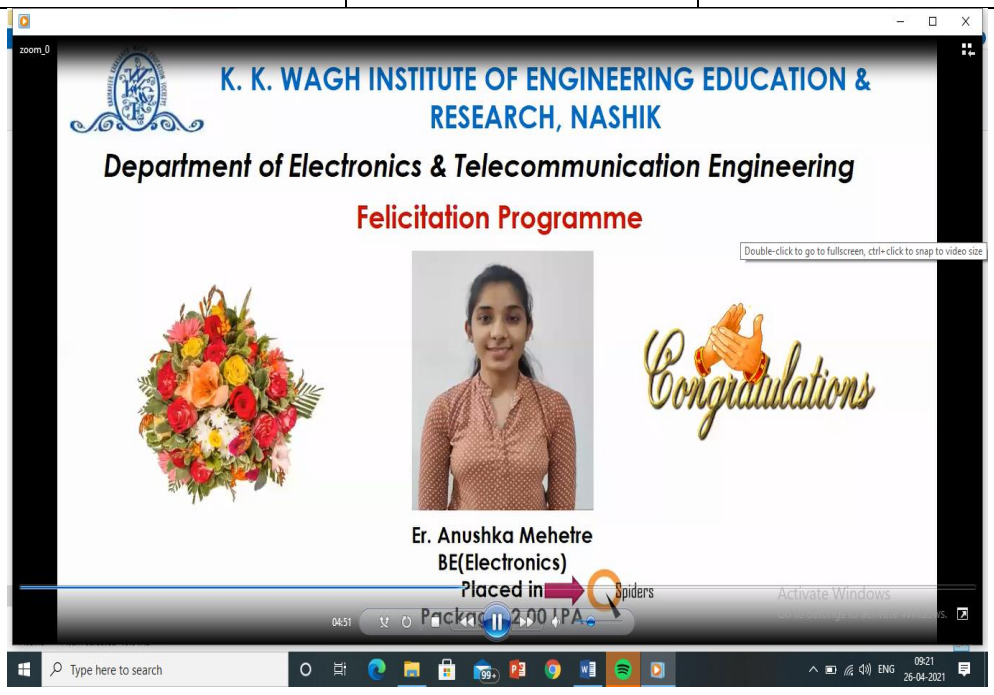
COURSE CERTIFICATE
Sep 29, 2020
SAMIKSHA R RAJPUT
has successfully completed
Cloud Computing Basics (Cloud 101)
an online non-credit course authorized by LearnQuest and offered through Coursera
coursera

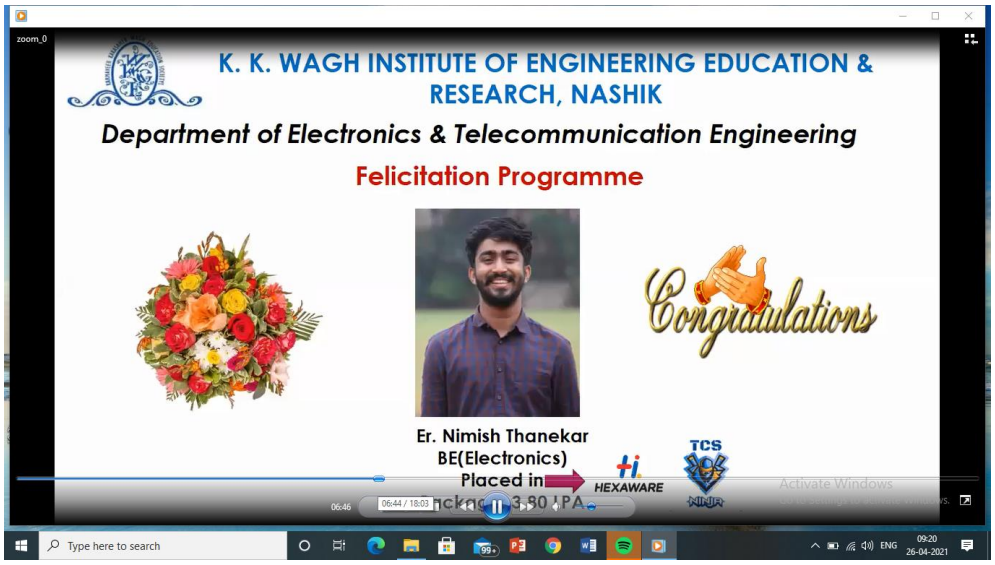
UCDAVIS
COURSE CERTIFICATE
Aug 30, 2020
Gaurav Digambar Surse
has successfully completed
Introduction to Web Development
an online non-credit course authorized by University of California, Davis and offered through Coursera
coursera

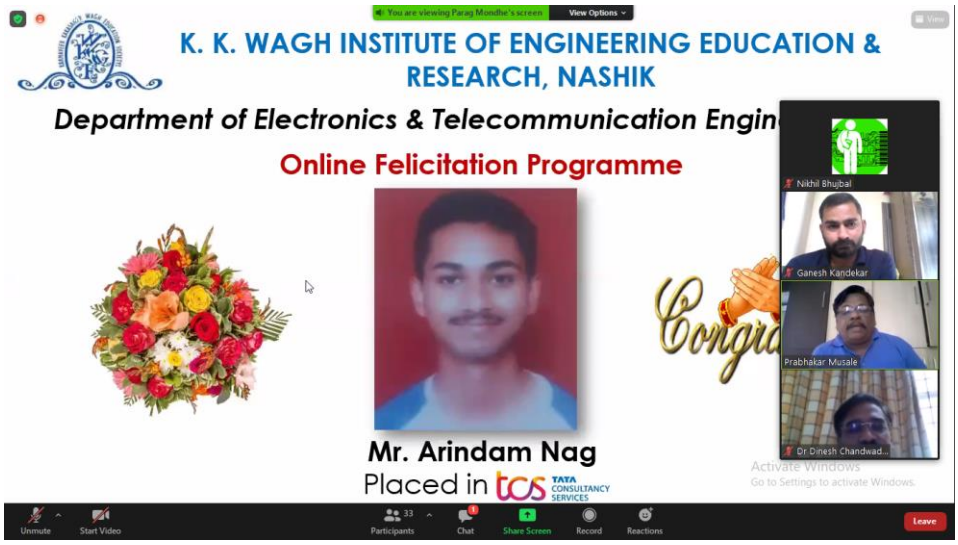
Online Felicitation Program of Placed Students

Online felicitation program was organized of placed students in the April, 2021

Sr. No.	Name of Student	Name of Company	Package (in Lacs)
1	Anushka Mehetre	Qspider	2
2	Nimish Thanekar	Hexaware & Ninja	3.5
3	Aditya Ghaywat	Capgemini	3.8
4	Atharv Shimpi	TCS	3.36
5	Arindam Nag	TCS	3.36




K. K. WAGH INSTITUTE OF ENGINEERING EDUCATION & RESEARCH, NASHIK
Department of Electronics & Telecommunication Engineering
Felicitation Programme
Congratulations
Er. Nimish Thanekar
BE(Electronics)
Placed in
HEXAWARE
TCS NINJA
Activate Windows


K. K. WAGH INSTITUTE OF ENGINEERING EDUCATION & RESEARCH, NASHIK
Department of Electronics & Telecommunication Engin
Online Felicitation Programme
Nikhil Bhujbal
Ganesh Kandekar
Prabhakar Musale
Dr Dinesh Chandwad...
Mr. Arindam Nag
Placed in TCS TATA CONSULTANCY SERVICES
Activate Windows
Unmute
Start Video
Participants
Chat
Share Screen
Record
Reactions
Leave

Published By

Department of E&TC

K.K. Wagh Institute of Engineering

Education & Research, Nashik

Hirabai HaridasVidyanagari,

Amrutdham, Panchavati

Nashik-422003

Editor: Mr. Dipankar D. Khartad

E-mail: ddkhartad@kkwagh.edu.in

Vision

Provide quality education to create engineering professionals of global standards by keeping pace with rapidly changing technologies to serve the society.

Mission

M1: To educate the students with the state-of-the-art technologies and value based education to meet the growing challenges of industry.

M2: To provide scholarly ambience & environment for creating competent professionals.

M3: To inculcate awareness towards societal needs.