The Zenith

July 01, 2021

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Contents:

Synthetic biology circuits can respond within seconds

Synthetic biology offers a way to engineer cells to perform novel functions, such as glowing with fluorescent light when they detect a certain chemical. Usually, this is done by altering cells so they express genes that can be triggered by a certain input.

However, there is often a long lag time between an event such as detecting a molecule and the resulting output, because of the time required for cells to transcribe and translate the necessary genes. MIT synthetic biologists have now developed an alternative approach to designing such circuits, which relies exclusively on fast, reversible protein-protein interactions. This means that there's no waiting for genes to be transcribed or translated into proteins, so circuits can be turned on much faster -- within seconds.

"We now have a methodology for designing protein interactions that occur at a very fast timescale, which no one has been able to develop systematically. We're getting to the point of being able to engineer any function at timescales of a few seconds or less," says Deepak Mishra, a research associate in MIT's Department of Biological Engineering and the lead author of the new study.

This kind of circuit could be useful for creating environmental sensors or diagnostics that could reveal disease states or imminent events such as a heart attack, the researchers say.

Ron Weiss, a professor of biological engineering and of electrical engineering and computer science, is the senior author of the study, which appears today in Science. Other authors include Tristan Bepler, a former MIT postdoc; Bonnie Berger, the Simons Professor of Mathematics and head of the Computation and Biology group in MIT's Computer Science and Artificial Intelligence Laboratory; Brian Teague, an assistant professor at the University of Wisconsin; and Jim Broach, chair of the Department of Biochemistry and Molecular Biology at Penn State Hershey Medical Center.

Protein interactions

Inside living cells, protein-protein interactions are essential steps in many signaling pathways, including those involved in immune cell activation and responses to hormones or other signals. Many of these interactions involve one protein activating or deactivating another by adding or removing chemical groups called phosphates.

In this study, the researchers used yeast cells to host their circuit and created a network of 14 proteins from species including yeast, bacteria, plants, and humans. The researchers modified these proteins so they could regulate each other in the network to yield a signal in response to a particular event.

Their network, the first synthetic circuit to consist solely of phosphorylation / dephosphorylation protein-protein interactions, is designed as a toggle switch -- a circuit that can quickly and reversibly switch

between two stable states, allowing it to "remember" a specific event such as exposure to a certain chemical. In this case, the target is sorbitol, a sugar alcohol found in many fruits.

Once sorbitol is detected, the cell stores a memory of the exposure, in the form of a fluorescent protein localized in the nucleus. This memory is also passed on to future cell generations. The circuit can also be reset by exposing it to a different molecule, in this case, a chemical called isopentenyl adenine.

These networks can also be programmed to perform other functions in response to an input. To demonstrate this, the researchers also designed a circuit that shuts down cells' ability to divide after sorbitol is detected.

By using large arrays of these cells, the researchers can create ultrasensitive sensors that respond to concentrations of the target molecule as low as parts per billion. And because of the fast protein-protein interactions, the signal can be triggered in as little as one second. With traditional synthetic circuits, it could take hours or even days to see the output.

Complicated networks

The toggle network that the researchers designed in this study is larger and more complex than most synthetic circuits that have been previously designed. Once they built it, the researchers wondered if any similar networks might exist in living cells. Using a computational model that they designed, they discovered six naturally occurring, complicated toggle networks in yeast that had never been seen before.

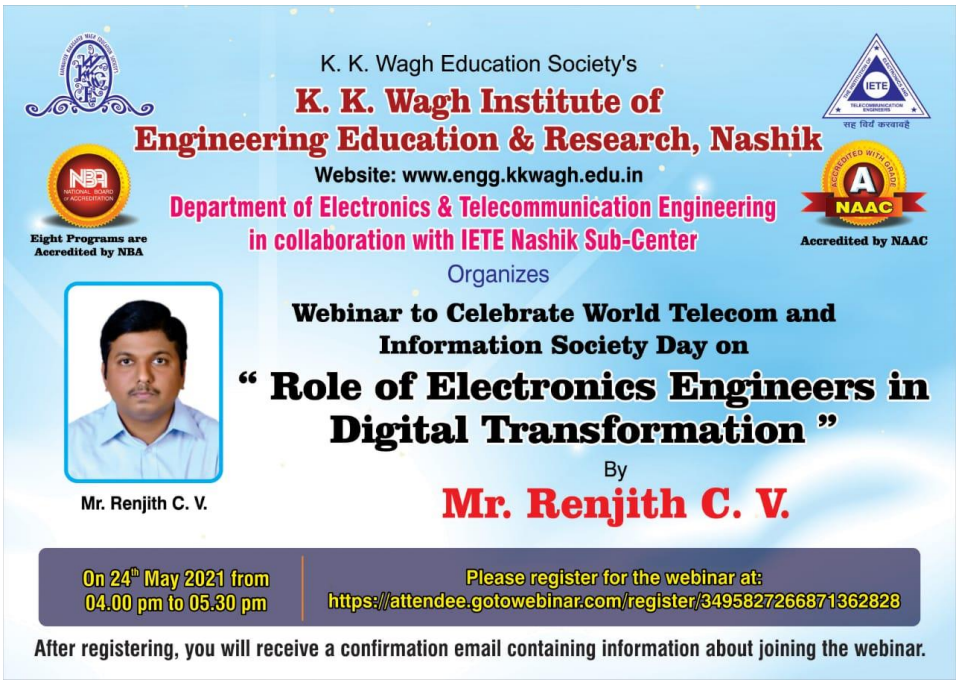
"We wouldn't think to look for those because they're not intuitive. They're not necessarily optimal or elegant, but we did find multiple examples of such toggle switch behaviors," Weiss says. "This is a new, engineered-inspired approach to discovering regulatory networks in biological systems."

The researchers now hope to use their protein-based circuits to develop sensors that could be used to detect environmental pollutants. Another potential application is deploying custom protein networks within mammalian cells that could act as diagnostic sensors within the human body to detect abnormal hormone or blood sugar levels. In the longer term, Weiss envisions designing circuits that could be programmed into human cells to report drug overdoses or an imminent heart attack.

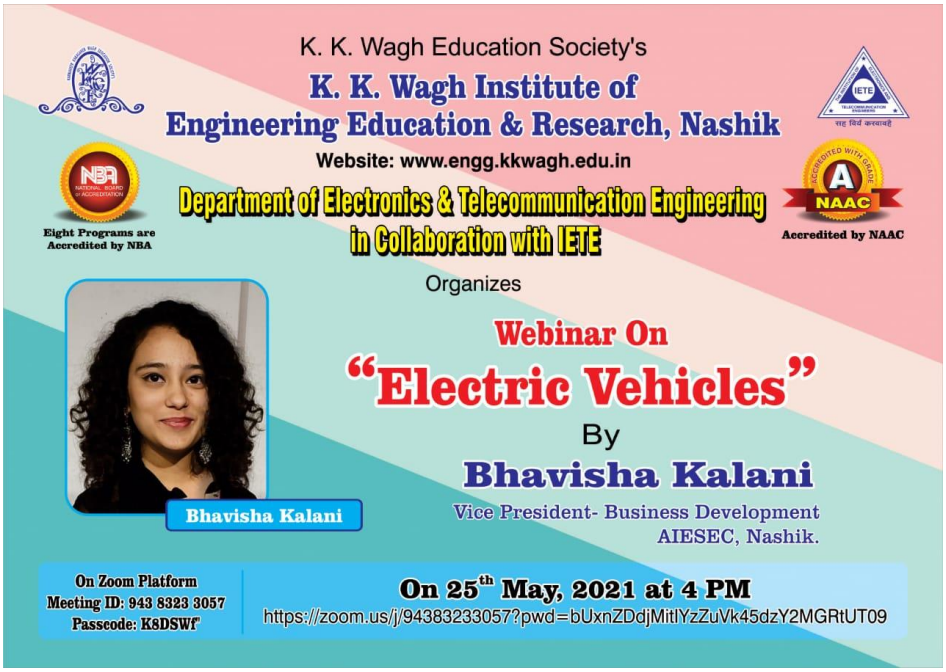
The research was funded by the Siebel Scholars Award, an Eni-MIT Energy Research Fellowship, the National Science Foundation Graduate Research Fellowship Program, the Institute for Collaborative Biotechnologies through the U.S. Army Research Office, a SynBERC grant from the National Science Foundation, and the Center for Integrated Synthetic Biology through the National Institutes of Health.

Expert Lecture/Seminars/Courses/Industrial Visits Organized

- Department of Electronics & Telecommunication Engineering in collaboration with IETE Nashik Sub-Center Organizes Webinar to Celebrate World Telecom and Information Society Day on “Role of Electronics Engineers in Digital Transformation” By, Mr. Renjith. C. V. on 24th May 2021.



- Webinar was organized in collaboration with IETE Nashik Sub-Center on “Electric Vehicles” by Bhavisha Kalani, Vice President- Business development, AIESEC, Nashik on 25th May 2021



- Webinar was organized in collaboration with IETE Nashik Sub-Center on “Opportunities and Career Path For Electronics & Telecommunication Engineer” by Mr. Jagdish Ugale, Manager R&D Department, TAS POWERTEK Pvt. Ltd. on 29th May 2021

- Webinar was organized in collaboration with IETE Nashik Sub-Center on “Applications of MATLAB for Engineering Students by MathWorks” by Dr. Prasad Lad, Customer Success Engineer, Mathworks and Mr. Nikhil Sonawane, Education Technical Evangelist, Mathworks on 18th June 2021.

- Webinar was organized in collaboration with IETE Nashik Sub-Center on “Online Motivational talk” by Er.Pravin Panchagnula , Country Head Manufacturing, Microsoft Corporation India Pvt, Ltd. on 19th June 2021.

Industrial Training / Seminar/Workshop done by Staff

- Mr. P. J. Mondhe has participated in workshop on “Research Metrics” conducted by Center Of Publication Ethics of Savitribai Phule Pune University, Pune on 4th May 2021.

- Prof. Dr. D. M. Chandwadkar has participated in workshop on “Outcome Based Education and National Assessment and Accreditation Council (NAAC)” conducted by G. S. Mandal’s MIT, Aurangabad & Mastersoft ERP solutions Nagpur on 14th and 15th May 2021.

MasterSoft
Accelerating education

G.S. Mandal's Maharashtra Institute of Technology, Aurangabad
& Mastersoft ERP Solutions, Nagpur

Certificate Of Participation

This is to certify that Mr./Mrs./Ms. *Dr Dinesh M Chandwadkar*
from *K K Wagh Institute of Engineering Education and Research Nashik*
has attended Two Days Educational Summit on Outcome-Based Education (OBE) and National Assessment and Accreditation Council (NAAC) organized by Mastersoft India in association with IQAC, Maharashtra Institute of Technology (An Autonomous Institute), Aurangabad on 14th and 15th May 2021.

Dr. Santosh Bhosle
Principal
MIT, Aurangabad

Shyam V. Somani
Managing Director
MasterSoft ERP Solutions Pvt. Ltd

- Dr. K. S. Holkar has participated in FDP on “Entrepreneurship, Innovation and Incubation” organized by Udyovardhini, Nashik from 17th to 31st May 2021.

Certificate

This is to Certify that
Mr./Miss./ Mrs. *Dr. Kailas S. Holkar* has successfully completed the
FACULTY DEVELOPMENT PROGRAMME
Supported by: NSTEDB Department of Science & Technology, Government of India
In Association with: AMRUTVAHINI COLLEGE OF ENGINEERING, SANGAMNER
Organized by: UDYOGWARDHINI ...Creating Opportunities
Udyogwardhini Shikshan Sanstha, Nashik
from 17th May - 31st May 2021
Date : 05th June 2021
3, Nirman Inspire, Kanherewadi,
Opp Old CBS, Nashik.
www.udyogwardhini.com
Sunil Chandak
President,
Udyogwardhini Shikshan Sanstha

- Dr. K. S. Holkar has participated in One Week Induction/Refresher Program on “Introduction to MOODLE for Teaching Leaning Process” organized by K. K. Wagh Polytechnic, Nashik from 17th to 22nd May 2021.

Certificate

This is to certify that ***KAILAS S. HOLKAR*** has successfully completed the AICTE-ISTE approved Orientation/Refresher Programme on ***“Introduction to Moodle for Teaching Learning Process”*** held during **17.05.2021** to **22.05.2021** organized by ***K. K. Wagh Polytechnic College, Nashik, Maharashtra.***

Director (FDC)
AICTE, ND

Executive Secretary
ISTE, ND

Program Coordinator
KKWPC, Nashik

Principal
KKWPC, Nashik

- Prof. Dr. D. M. Chandwadkar has participated in workshop on “OBE Concepts & Implementation and Digital Preparedness for NBA” organized by Internal Quality Assurance Cell(IQAC), Maharashtra Institute of Technology, Aurangabad on 29th May 2021.


G. S. Mandal's
Maharashtra Institute of Technology, Aurangabad
(An Autonomous Institute)
Approved by AICTE, New Delhi
Permanently Affiliated to Dr. Babasaheb Ambedkar Marathwada University, Aurangabad

Certificate of Participation

This is to certify that **Dr Dinesh M. Chandwadkar** has attended One Day Online Workshop on **"OBE Concepts & Implementation and Digital Preparedness for NBA"** organized by Internal Quality Assurance Cell(IQAC), Maharashtra Institute of Technology, Aurangabad on 29th May 2021.

Dr. P. M. Ambad, IQAC, Coordinator
Dr. Kishor Kulkarni, Vice Principal - Academics
Dr.Santosh Bhosle, Principal

OBENBA000261

- Mrs. K. Nirmalakumari has successfully completed one week online Faculty Development Program on “Artificial Intelligence” organized by department of Electronics and Telecommunication Engineering and Internal Quality Assurance Cell (IQAC) of Dr. D Y Patil School of Engineering from 24th May 2021 to 28th May 2021

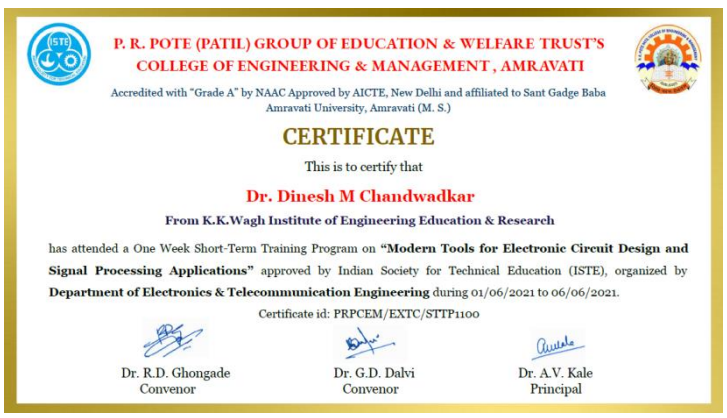

"Empowerment Through Quality Technical Education"
Dr. D Y Patil School of Engineering
Dr. D Y Patil Knowledge City, Charholi(Bk), Via Lohegaon,Pune-412105
Department of Electronics and Telecommunication Engineering

Certificate of Participation

This is to certify that Kaithi Nirmalakumari
from KKWIEER
has successfully completed one week online Faculty Development Program on "Artificial Intelligence" organized by department of Electronics and Telecommunication Engineering and Internal Quality Assurance Cell (IQAC) of Dr. D Y Patil School of Engineering from 24th May 2021 to 28th May 2021.

Dr. Saniya Ansari (Coordinator)
Dr. Sanjay Koli (HoD)
Dr. Ashok Kasnale (Principal)

- Prof. Dr. D. M. Chandwadkar has attended a One Week Short-Term Training Program on “Modern Tools for Electronic Circuit Design and Signal Processing Applications” approved by Indian Society for Technical Education (ISTE), organized by Department of Electronics & Telecommunication Engineering during 01/06/2021 to 06/06/2021


P. R. POTE (PATIL) GROUP OF EDUCATION & WELFARE TRUST'S
COLLEGE OF ENGINEERING & MANAGEMENT , AMRAVATI
Accredited with "Grade A" by NAAC Approved by AICTE, New Delhi and affiliated to Sant Gadge Baba Amravati University, Amravati (M. S.)

CERTIFICATE

This is to certify that

Dr. Dinesh M Chandwadkar

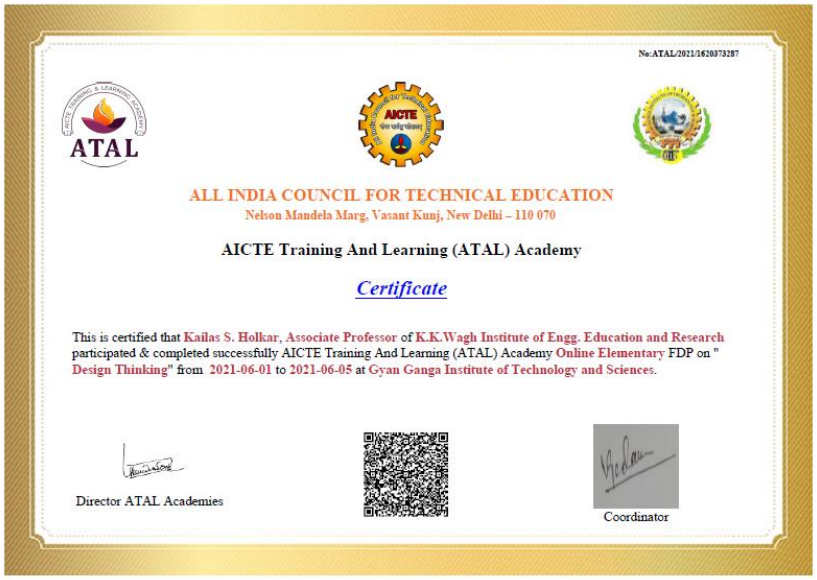
From K.K.Wagh Institute of Engineering Education & Research

has attended a One Week Short-Term Training Program on **"Modern Tools for Electronic Circuit Design and Signal Processing Applications"** approved by Indian Society for Technical Education (ISTE), organized by **Department of Electronics & Telecommunication Engineering** during 01/06/2021 to 06/06/2021.

Certificate id: PRPCEM/EXTC/STTP1100

Dr. R.D. Ghongade, Convenor
Dr. G.D. Dalvi, Convenor
Dr. A.V. Kale, Principal

- Dr. Kailas S. Holkar has participated & completed successfully AICTE Training And Learning (ATAL) Academy Online Elementary FDP on "Design Thinking" from 1st to 6th June 2021 at Gyan Ganga Institute of Technology and Sciences.



No:ATAL/2021/1620373287

ATAL

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 Kailas S. Holkar, Associate Professor of K.K.Wagh Institute of Engg. Education and Research participated & completed successfully AICTE Training And Learning (ATAL) Academy Online Elementary FDP on " Design Thinking" from 2021-06-01 to 2021-06-05 at Gyan Ganga Institute of Technology and Sciences.

Director ATAL Academies

Coordinator

- Mrs. R. M. Jadhav (Kale) has participated and successfully completed the 5-day online FDP on the theme “Inculcating Universal Human Values in Technical Education” organized by All India Council for Technical Education (AICTE) from 31 May, 2021 to 4 June, 2021

F.No AICTE/FDP-SI/OnlineWorkshop/201/69761

ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

NELSON MANDELA MARG, VASANT KUNJ, NEW DELHI

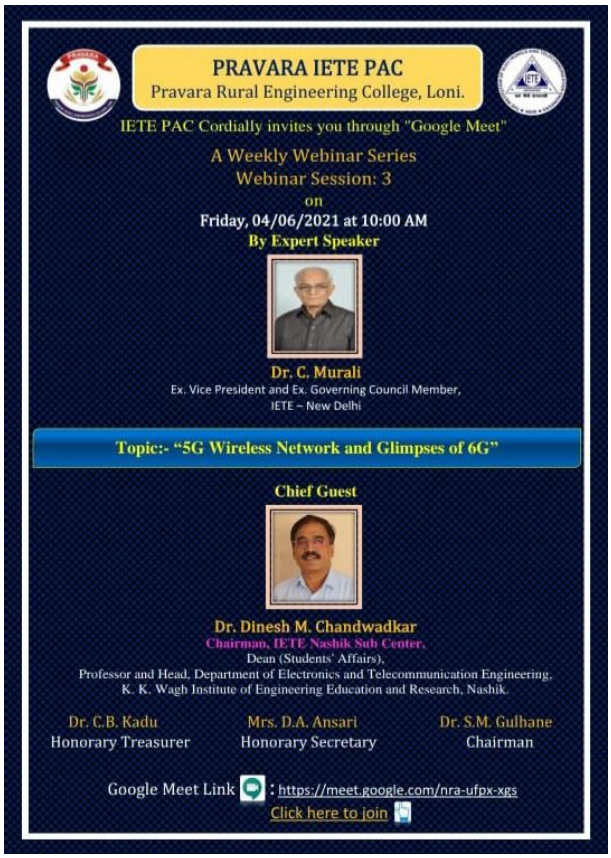
Certificate of Participation

This is to certify that Mrs. Rupali Manoj Jadhav from K K Wagh Institute of Engineering Education and Research, Nashik has participated and successfully completed the 5-day online FDP on the theme "Inculcating Universal Human Values in Technical Education" organized by All India Council for Technical Education(AICTE) from 31 May, 2021 to 4 June, 2021.

Dr. Rajneesh Arora
Chairman
National Coordination Committee for Induction Program

Prof. Rajive Kumar
Member Secretary, AICTE

- Prof. Dr. D. M. Chandwadkar invited as Chief Guest at PREC IETE PAC Pravara Rural Engineering College, Loni for the webinar on “5G Wireless Network and Glimpses of 6G” on 4th June 2021.



- Prof. Dr. D. M. Chandwadkar and Dr. S. A. Patil (Ugale) has attended webinar on "5G Wireless Network and Glimpses of 6G" organized by PREC IETE PAC Pravara Rural Engineering College, Loni on 4th June 2021.

- Dr. K. S. Holkar has participated in FDP on "Industrial Internet of Things (IIoT)" organized by Department of Mechanical Engineering, SKIT, Jaipur 7th to 11th June 2021.

No:ATAL/2021/1620373731

ATAL

AICTE

SKIT

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 Kailas S. Holkar, Associate Professor of K.K.Wagh Institute of Engg. Education and Research participated & completed successfully AICTE Training And Learning (ATAL) Academy Online Elementary FDP on " Industrial Internet of Things (IIoT)" from 2021-06-07 to 2021-06-11 at Swami Keshvanand Institute of Technology, Management & Gramothan.

Director ATAL Academies

Coordinator

- Prof. Dr. D. M. Chandwadkar has attended a webinar on Webinar on “Is it too early to start research in 6G, Research trends in ‘Beyond 5G’ and ‘6G’ Technologies” on 13th June 2021.

The Institution of Electronics and Telecommunication Engineers

Hyderabad Centre

Celebrating 47 Years of Excellence

CERTIFICATE

OF PARTICIPATION

This is to certify that

Dr Dinesh M Chandwadkar

Professor

K.K.Wagh Institute of Engineering Education & Research

has participated in the IETE Knowledge Sharing Session (KSS) – 30 : Webinar - 51 on

“Is it too early to start Research in 6G? Research Trends in ‘Beyond 5G’ & ‘6G’ Technologies”

organized by IETE, Hyderabad Centre on 13th June, 2021.

Er. Nuli Namassivaya

Honorary Secretary

Er. K. Gnaneshwar Rao

Chairman

www.ietehyd.org BPT99O-CE

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- Prof. Dr. D. M. Chandwadkar and Dr. S. A. Patil (Ugale) has attended workshop on “Towards Holistic Development” based on guidelines of NEP-2020 organized by Dr. D. Y. Patil Institute of Technology, Pimpri, pune from 15th to 19th June 2021.

DPU

DR. D. Y. PATIL INSTITUTE OF TECHNOLOGY, PIMPRI, PUNE-411018

CERTIFICATE OF PARTICIPATION

This is to certify that ***Dr. Dinesh M. Chandwadkar*** from ***K.K.Wagh Institute of Engineering Education and Research*** has attended one-week Online Faculty Development Program on “Towards Holistic Development” based on guidelines of National Education Policy (NEP)-2020, organized by Department of Electronics and Telecommunication Engineering during 15th to 19th June 2021.

DR. DEEPALI SALE, Coordinator | DR. BHAVNA AMBUDKAR, HOD, E&TC Engineering | DR. PRAMOD PATIL, Principal

DPU

DR. D. Y. PATIL INSTITUTE OF TECHNOLOGY, PIMPRI, PUNE-411018

CERTIFICATE OF PARTICIPATION

This is to certify that ***Dr. Sunita A Patil (Ugale)*** from ***K.K.Wagh Institute of Engineering Education and Research*** has attended one-week Online Faculty Development Program on “Towards Holistic Development” based on guidelines of National Education Policy (NEP)-2020, organized by Department of Electronics and Telecommunication Engineering during 15th to 19th June 2021.

DR. DEEPALI SALE, Coordinator | DR. BHAVNA AMBUDKAR, HOD, E&TC Engineering | DR. PRAMOD PATIL, Principal

- Mr. D. D. Khartad have attended workshop on “System Design Using Vivado Design Suite and Zynq-7000 SoC” organized by School of Electrical Engineering, MIT Academy of Engineering , Alandi, Pune from 16th to 20th June 2021.

- Prof. Dr. D. M. Chnadwadkar has contributed as a Session Chair for Digital System Track at "ePGPEX-2021" organized by Board of Studies (E&TC), in association with Amrutvahni College of Engineering, Sangamner on 18th June 2021.

- Mr. P. J. Mondhe has voluntarily contributed as reviewer of papers in the track "Artificial Intelligence and Machine Learning" for ICCICT-2021 organized by Sardar Patel Institute of Technology, Mumbai from 25th to 27th June 2021.

- Prof. Dr Dinesh M Chandwadkar has participated in One week Faculty Development Program on "Interactive Teaching Learning Strategies With Affective & Cognitive Approach (ITLS)"

organized by Department of Electronics and Telecommunication Engineering at PVG's COET & GKPIM, Pune from 21st to 25th June 2021.

Pune Vidyarthi Griha's
College of Engineering & Technology and G.K.Pate(Wani) Institute of Management,
Pune -411009
Department of Electronics and Telecommunication Engineering

Certificate of Participation

This is to certify that Dr Dinesh M Chandwadkar, K.K.Wagh Institute of Engineering Education & Research has actively participated in One week Faculty Development Program on ***"Interactive Teaching Learning Strategies With Affective & Cognitive Approach (ITLS)"*** *organized by Department of Electronics and Telecommunication Engineering at* ***PVG's COET & GKPIM ,Pune*** *from* ***21st to 25th June 2021.***

Prof. N.D.Chaudhari	Prof. Dr. M.P.Atre	Prof. Dr.Y.B.Thakare	Dr. M.R.Tarambale
Coordinator	Coordinator	Head ,E&TC	I/C Principal

- Prof. Dr. D. M. Chnadwadkar has attended one day online national symposium on "Technology Vision: 2035 and Education Perspective" organized by Thakur College of Engineering and Technology, Mumbai on 26th June 2021.

TCET
Celebrating 20th Foundation Day
In Association with
TIFAC
TECHNOLOGY INFORMATION, FORECASTING AND ASSESSMENT COUNCIL (TIFAC)
(An Autonomous body under Department of Science and Technology, GoI)
One Day Online National Symposium
TECHNOLOGY VISION 2035:
An Educational Perspective
Certificate of Participation
Dr Dinesh M Chandwadkar
is appreciated for active participation in the One Day Online National Symposium On "Technology Vision 2035: An Educational Perspective", organized by Thakur College of Engineering and Technology, Mumbai In Association with Technology Information, Forecasting and Assessment Council (TIFAC) held in online mode on 26th June 2021.
Dr. Deven Shah, Programme Co-Chair, Vice-Principal, TCET
Dr. B.K. Mishra, Programme Chair, Principal, TCET

Coursera Certification by Staff

SUNY The State University of New York
COURSE CERTIFICATE
Dinesh Chandwadkar
Exploring Emerging Technologies for Lifelong Learning and Success
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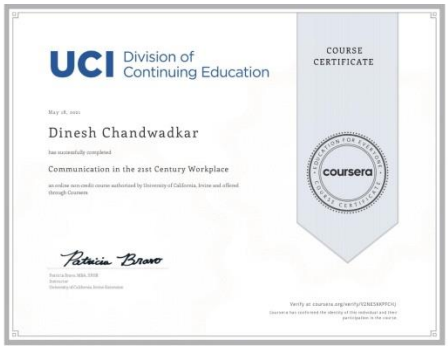

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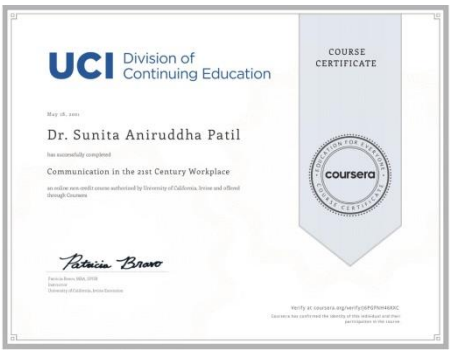
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VISHWAS RAMKRISHNA TAKATE
Organisational behaviour: Know your people
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COURSE CERTIFICATE
Mayuri Parag Joshi
Programming for Everybody (Getting Started with Python)
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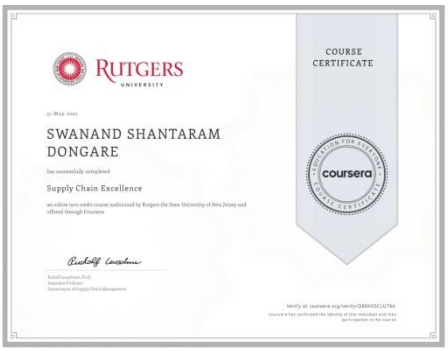
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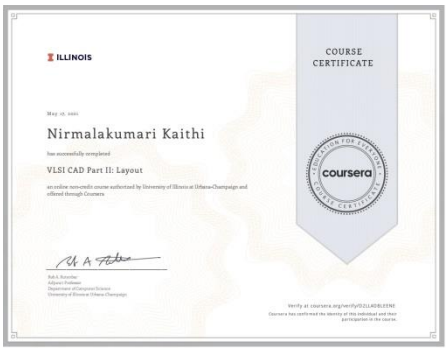
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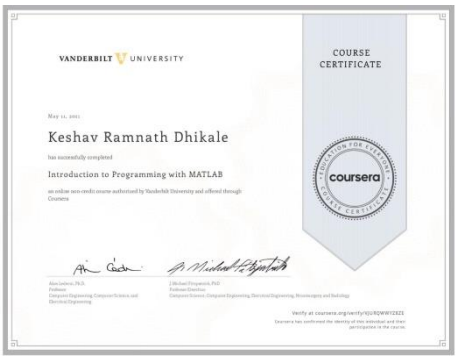
COURSE CERTIFICATE
Rohini Vikas Daund
Self Awareness and the Effective Leader
coursera


COURSE CERTIFICATE
RUPALI MANOJ JADHAV
Cloud Computing Basics (Cloud 101)
coursera



- Staff has completed various courses on coursera.

Sr. No.	Name of Staff Member	Course Title
1.	Prof. Dr. D. M. Chandwadkar	Exploring Emerging Technologies for Lifelong Learning and Success
2.		Communication in the 21st Century Workplace
3.	Dr. K. S. Holkar	Improving Math Engagement with Prodigy
4.		Introduction to Cloud Identity
5.	Mrs. S. P. Munot (Bhabad)	Brain Tumor Classification Using Keras
6.		Build a Full Website using WordPress
7.	Dr. S. A. Patil (Ugale)	Exploring Emerging Technologies for Lifelong Learning and Success
8.		Communication in the 21st Century Workplace
9.	Dr. S. S. Morade	Initiation to a google drive
10.		Teaching with Peer Review Using Eduflow
11.		Tracking Student Growth using Google Slides
12.	Mr. R. R. Khinde	How To Create a Website in a Weekend! (Project-Centered Course)
13.		Create Charts and Dashboard using Google Sheets
14.		Improve Efficiency in Asana for Project Managers
15.	Mr. V. R. Takate	Organisational behaviour: Know your people
16.	Mrs. M. P. Joshi	Programming for Everybody (Getting Started with Python)
17.		Tracking Student Growth using Google Slides
18.	Mrs. V. R. Lele	The Science of Well-Being
19.		Tracking Student Growth using Google Slides
20.		Analyze Data using Pivot Tables, Crosstabs in Google

		Sheets
21.		Build an Interactive Worksheet in Google Slides
22.		Create Training Videos with Powtoon
23.	Mrs. D. C. Shimpi	Introduction to Artificial Intelligence (AI)
24.		Tracking Student Growth using Google Slides
25.	Mrs. R. V. Chothe	Initiation à Google Drive
26.	Mrs. S. A. Karpe (Shinde)	Build a Full Website using WordPress
27.	Mr. K. S. Navale	AWS S3 Basics
28.		Computer Vision - Image Basics with OpenCV and Python
29.		Getting Started with AWS Machine Learning
30.	Mrs. S. V. Shelke	Tracking Student Growth using Google Slides
31.		Introduction to programming with MATLAB
32.	Mrs. A. H. Dhangare	Tracking Student Growth using Google Slides
33.		Communication in the 21st Century Workplace
34.	Mr. D. D. Khartad	Initiation à Google Drive
35.	Mrs. P. P. Patil	The Science of well being
36.	Mr. S. S. Dongare	Improving Math Engagement with Prodigy
37.		Supply Chain Excellence
38.	Mr. P. J. Mondhe	Speak English Professionally: In Person, Online & On the Phone
39.		Initiation à Google Drive
40.		Machine Learning Pipelines with Azure ML Studio
41.		Engaging and Assessing Students with Plickers
42.		Using Google Forms for Student Success
43.	Mrs. K. Nirmala Kumari	Improving Math Engagement with Prodigy
44.		VLSI CAD PartII: Layout
45.		Speak English Professionally: In Person, Online & On the Phone
46.	Mr. S. A. Zalte	Initiation à Google Drive
47.	Ms. J. R. Shinde	Tracking Student Growth using Google Slides
48.	Ms. Rohini Daund	Write professional emails in English
49.		Self-Awareness and the Effective Leader
50.	Rupali M. Jadhav	Cloud Computing Basics (Cloud 101)

51.		Tracking Student Growth using Google Slides
52.	Keshav R. Dhikale	Introduction to programming with MATLAB
53.		Tracking Student Growth using Google Slides
54.		Improving Math Engagement with Prodigy

Udemy Courses Developed by Staff

- Staff has developed and uploaded different courses on Udemy platform

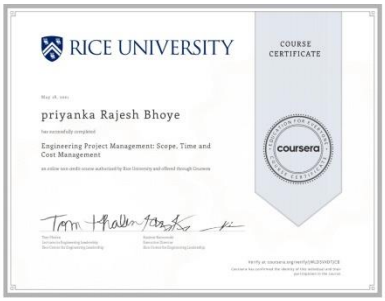
Sr. No.	Name of Staff	Name of Course	Link
1.	Mr. R. R. Khinde	Basics of computer networking & Fault finding	https://www.udemy.com/course/computer-networking-and-fault-finding/learn/lecture/26092586?start=0#content
2.	Mrs. V. R. Lele	Features of OOP	https://www.udemy.com/course/features-of-oop/?referralCode=00812CCAF717E86AE496
3.	M.P.Joshi	Wireless Technologies for IoT	https://www.udemy.com/course/draft/4068926/?referralCode=71D2510B7C331B721F97
4.	D. C. Shimpi	Spread spectrum techniques	https://www.udemy.com/course/spread-spectrum-techniques/?referralCode=0EAE902675D70E5C87D7
5.	Rupali Vilas Chothe	Pyhton programming:Basics and Hands on	https://www.udemy.com/course/python-programming-handson/?referralCode=9BEE9A513E1FD14994E2
6.	Smita Shinde	Artificial Intelligence	https://www.udemy.com/join/login-popup/?next=/home/teaching/test-video
7.	Mr. N. M Bhujbal	Fundamentals of sensor interfacing	https://www.udemy.com/course/fundamentals-of-sensor-interfacing/?referralCode=30BB4D2F0690A84DAC4A
8.	A.H.Dhangare	Design and simulate circuit in Tinkercad software	https://www.udemy.com/course/draft/3981784/learn/lecture/26658710#overview
9.	K.S.Navale	Introduction to Python Programming	https://www.udemy.com/share/104FPwAEYddFpRRHQF/https://www.udemy.com/share/104FPwAEYddFpRRHQF/
10.	Puja Patil	Implementation of different Modulation techniques using Matlab	https://www.udemy.com/course/implementation-of-various-modulation-techniques-using-matlab/?referralCode=8D955BA0B8B7F029C2FC
11.	P J Mondhe	Decoding Cellular Communication	https://www.udemy.com/course/decoding-cellular-communication/?referralCode=28FD2EA94AFB5201DC5F

12.	Kaithi Nirmalakumari	Hardware Description Languages for Logic Design	https://www.udemy.com/course/draft/4071514/?referralCode=C675D333A96230E21381

Coursera Courses By Students

- Students have completed various courses on coursera.

Sr. No	Name of Student	Class	Course Name
1.	Ganore Vaishnavi Rajendra	FE	Programming for Everybody (Getting Started with Python)
2.	Bhoye Priyanka Rajesh	SE	Engineering Project Management: Scope, Time and Cost Management
3.	Shrivastava Aditi Navneet		C for Everyone: Programming Fundamentals
4.			Custom Reports in Google Analytics



Students Placement for AY 2020-21

Sr. No.	Name of the Student placed	Name of the Employer	Package (LPA)
1.	Neha Rajesh Kinge	Fin IQ	8.00
2.	Pritam Jitendra Khairnar	Fin IQ	8.00
3.	Vrushali Shashikant Digholkar	Fin IQ	7.00
4.	Kadlag Gayatri Kiran	Capgemini	3.80
5.	Patil Aishwarya Shivaji	Capgemini	3.80
6.	Aditya Chintamani Aradhye	Capgemini	3.80
7.	Aditya Prakash Ghaywat	Capgemini	3.80
8.	Kavita Pundlik Gore	Capgemini	3.80
		Infosys	3.50
9.	Rajeev Nityanand Bhat	Capgemini	3.80
10.	Arya Aniket	Birlasoft India Pvt. Ltd	3.60
		TCS	3.36
11.	Bhadane Shruti Vijaykant	TCS	3.36
12.	Arindam Nag	TCS	3.36
13.	Atharv Shimpi	TCS	3.36
14.	Farhan Alam	TCS	3.36
15.	Sakshat Erande	TCS	3.36
16.	Kinge Prathamesh Rangnath	TCS	3.36
17.	Mali Adarsh Pitambar	TCS	3.36
18.	Pawar Neha Ravindra	TCS	3.36
19.	Thanekar Nimish Vinod	Hexaware technologies	3.36
		TCS	3.36
		Accenture	7.00
20.	Bacchav Prajakta Vasant	Accenture	7.00
21.	Shubham Patil	TCS	3.36
		Amdocs	4.20

22.	Saurabh Sopan Shinde	Persistent Systems	4.51
23.	Sayali Abhiman Aher	Persistent Systems	4.51
24.	Kartiki Khairnar	Persistent Systems	4.51
25.	Nishank Jawale	Persistent Systems	4.51
26.	Prajakta Kubhakarna	Persistent Systems	4.51
27.	Beri Omkar Suhas	Persistent	4.50
		Mahindra & Mahindra	3.60
28.	Hrishikesh Vinod Mahajan	Persistent Systems	4.51
		Wipro	3.50
29.	Garima Mishra	Wipro	3.50
30.	Akshada Patel	Infosys	3.50
31.	Krishna Kulkarni	Infosys	3.50
32.	Prajwal Wagh	Infosys	3.50
33.	Vanshika Manwani	Infosys	3.50
34.	Ani Singh	Infosys	3.50
		Perennial Systems	4.20
35.	Kudhekar Vaishnavi Narayan	Infosys	3.50
		Mahindra & Mahindra	3.00
36.	Avhad Amruta Machhindra	Mahindra & Mahindra	3.00
37.	Pekhale Jayesh Sanjay	Mahindra & Mahindra	3.00
38.	Khan Saher Shakeel	Mahindra & Mahindra	3.00
39.	Gaikwad Anjali Mothabhau	Yotta Network Services Pvt. Ltd., Mumbai	3.80
40.	Snehal Sunil Joshi	Face	3.06
41.	Mehetre Anushka Pradip	Qspider	2.00
42.	Mahak Kamlesh Jain	Qspider	2.00
43.	Mahale Shubham Dattu	NCDEX	4.20

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