

Vision:

To be the most sought after technical campus that others would wish to emulate

Mission:

Creating Exuberant
Technical Professionals



ANJUMAN-I-ISLAM'S KALSEKAR TECHNICAL CAMPUS (AIKTC) NEW PANVEL- 410 206

THREE DAYS
NATIONAL CONFERENCE
ON INNOVATIVE
TEACHING & EXUBERANT
LEARNING (nCiTeL - 2021)

26-28 JUNE 2021

Organized By:
Center for Innovative
Teaching & Exuberant
Learning (CiTeL)

UNDER IQAC

CONFERENCE PROCEEDINGS

OUR INSPIRATION

Haji Abdul Razzak Kalsekar

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ABOUT US

An honest campus that propels students high into the world of Art and Technology. Established in 2011, AIKTC is spread over 10.50 acres of virgin land with more than 2.36 lakh sq.ft of built-up area and still expanding. It is (minority institution) built to provide an integrated learning environment for students from all communities. It is an outstanding technological campus where students are trained & taught by qualified teachers to attain their full potential. AIKTC provides best of facilities for quality education, research and practice in all the professional programs in Engineering & Technology, Pharmacy and Architecture, ranging from Diploma to Degree to Post Graduate courses.





PRESIDENT'S PROLOGUE



On behalf of Anjuman-I-Islam, it is my honour and privilege to welcome all the delegates and participants at the Three Days "National Conference on Innovative Teaching & Exuberant Learning" (nCiTeL) organized by Anjuman-I-Islam's Kalsekar Technical Campus, New Panvel on 26 - 28 June 2021.

Anjuman-I-Islam's Kalsekar Technical Campus (AIKTC), the most modern and high-tech educational campus of Navi Mumbai. AIKTC came into existence by the progressive approach and efforts of Anjuman-I-Islam, the foremost prestigious educational and social organization of India established 148 years ago, in 1874.

Recently, Anjuman-I-Islam was conferred upon prestigious **Sir Syed Excellence National Award by Aligarh Muslim University (AMU)** on 17th October 2020 proudly commemorated as Sir Syed Day at virtual ceremony. This conference has been organized to provide an insight to innovative teaching pedagogies used during Covid-19 pandemic and also post pandemic. My best wishes to all of you for fruitful culmination of this educational conference.

Dr. Zahir I. Kazi President, Anjuman-I-Islam, Mumbai

MESSAGE FROM HONORABLE GENERAL SECRETARY



It's gives me immense pleasure to welcome all the delegates and participants at the Three Days "National Conference on Innovative Teaching & Exuberant Learning" (nCiTeL) organized by Anjuman-I-Islam's Kalsekar Technical Campus, New Panvel.

The technical education is the most important need of the hour where students can shape their ideas into action and be the future leaders of the industry. Let us move ahead from the general courses to the most direct technical education system where job-based skills are imparted. A technical campus like AIKTC moulds dedicated students into Architecture, Engineers, and pharmacists for creating and functioning modern system and technologies as per global system. With paradigm shift from offline to online teaching, there is need of acquiring skills to ensure virtual learning become joyful process. This conference has been organized to improve practical approaches towards implementation of innovative teaching pedagogies and technologies in regular teaching practices through blended or hybrid mode of learning. I wish all the best for grand success of this conference.

Mr. G. A. R. Shaikh Hon. General Secretary, Anjuman-I-Islam, Mumbai

MESSAGE FROM HONORABLE EXECUTIVE CHAIRMAN



It's a great honour and privilege for me to welcome you all at the Three Days "National Conference on Innovative Teaching & Exuberant Learning" (nCiTeL) organized by Anjuman-I-Islam's Kalsekar Technical Campus, New Panvel.

We at AIKTC are continuously upgrading our teaching-learning system by imparting innovative pedagogies both online and offline. During this ongoing pandemic, we have ensured excellent delivery of concepts by the faculties through online platforms especially simulation platforms for practical subjects. In this campus, we produce knowledgeable technical professionals having right attitude, character and inspiring mind, thus making them lifelong learners. To accomplish this we do all that is required to be done. The shift of traditional approaches of teaching and learning to more innovative pedagogies and expertise in the use of technical tools is needed to equipped teachers to deliver 21st century skills to the students. This conference is conducted to provide a platform to deliberate on the recent pedagogies, tools and technologies in the field of education. I am confident that such endeavour will enable us to stand on quickly changing global scenario of educational system. I wish best luck for a grand success of this conference.

Mr. Burhan Harris, Hon. Executive Chairman, Board for Institutions in Navi Mumbai, Anjuman-I-Islam, Mumbai

WELCOME MESSAGE



On behalf of Anjuman-I-Islam's Kalsekar Technical Campus (AIKTC), it's my honour and privilege to welcome all the delegates and participants at the Three Days "National Conference on Innovative Teaching & Exuberant Learning" (nCiTeL) organized by Anjuman-I-Islam's Kalsekar Technical Campus.

We have created a Centre for Innovative Teaching and Exuberant Learning (CiTeL) at AIKTC with a clear vision of exploring innovative pedagogies and tools in teaching and learning. Today, I am very pleased by this strong initiative by this centre that will benefit not only teachers of AIKTC but have taken a step to organize a national level conference which will benefit all the participants across the country. This program is a well-coordinated attempt to provide an ecosystem that reassures participation, sharing innovative ideas and networking opportunities among teachers.

I am thankful to the core team of Centre for Innovative Teaching and Exuberant Learning (CiTeL), Internal Quality Assurance Cell (IQAC) and faculty/staff members involved for their commendable efforts in organizing this conference. We are grateful to the Management of Anjuman-I-Islam for providing financial support and guidance.

Dr. Abdul Razak Honnutagi Director & Conference Chair, AIKTC, New Panvel

WELCOME MESSAGE



On behalf of Internal Quality Assurance Cell (IQAC) of AIKTC, it's my honour and privilege to welcome all the delegates and participants at the Three Days "National Conference on Innovative Teaching & Exuberant Learning" (nCiTeL)" organized by Anjuman-I-Islam's Kalsekar Technical Campus.

The IQAC is an integral part of the institute, realizing the goals of quality enhancement by developing a system for conscious, consistent and catalytic improvement in different aspects of functioning of the institute. In view of exploring the practical approach towards the implementation of innovative teaching pedagogies and technologies in regular teaching practice, Centre for Innovative Teaching and Exuberant Learning (CiTeL) has organized a three days National Conference on "Innovative Teaching and Exuberant learning" (nCiTel) under IQAC.

On behalf of IQAC, I express my sincere gratitude to resource persons, judges and participants for being a part of this conference. I take this opportunity to thank entire team of Centre for Innovative Teaching and Exuberant Learning for painstaking efforts to organise this conference.

Dr. Rajendra Magar IQAC Coordinator, AIKTC Dean (Academic Affairs), Head, Department of Civil Engineering, SoET

ACKNOWLEDGEMENT



On behalf of conference organizing committee, I am pleased to welcome all the delegates and participants at the Three Days "National Conference on Innovative Teaching & Exuberant Learning" (nCiTeL) organized by Anjuman-I-Islam's Kalsekar Technical Campus, New Panvel.

This conference has been conceptualized based on recent UGC draft of blended learning model, National Education Policy 2020, and changing paradigm in teaching and learning post COVID-19 into the mind. We have put together a blend of high-quality sessions to cover expectation and challenges in teaching and learning post pandemic, tools and techniques of active learning, role of teacher in research and innovation, developing own MOOCs, and technology enabled teaching and learning. The conference also provides a platform for teachers to share their best practices and case studies to get valuable guidance and new insights for its future implementation.

On behalf of my core team of nCiTeL, I would like to thank Internal quality assurance cell, Director of the AIKTC, Hon. Executive Chairman BINM and the management of Anjuman-I-Islam for their support and guidance.

Shaikh Abusufyan,
Controller & Conference Convener,
Centre for Innovative Teaching & Exuberant Learning (CiTeL)
AIKTC, New Panvel

Table of Contents

Sr. No	Content		
1	Conference Advisory Committee	10	
2	Conference Managing Committee	11	
3	Conference Organizing Committee	12	
4	Conference Schedule Day I	13-14	
5	Conference Schedule Day II	15	
6	Conference Schedule Day III	16	
7	Speaker's Profile and Abstracts of Keynote address	17-42	
8	Index & Schedule of Oral Presentation	43-44	
9	Abstracts of Oral Presentation	45-80	

Conference Advisory Committee



Dr. Abdul Razak Honnutagi Director, AIKTC



Dr. Rajendra Magar IQAC Co-ordinator



Dr. Shariq Syed Dean, SoP



Prof. Raj Mhatre Dean, SoA

Conference Managing Committee



Prof. Tabrez Khan HoD, CO



Prof. Rizwan Farade HoD, EE



Prof. Bandanawaz K HoD, EXTC



Prof. Zakir Ansari HoD, ME



Prof. Arif Iqbal FE Controller



Prof. Afzal Shaikh Registrar, AIKTC

Conference Organizing Committee



Prof. Shaikh Abusufyan Convener, nCiTeL-2021



Prof. Geeta Desai Coordinator, nCiTeL



Prof. Fauwaz Parkar Coordinator, nCiTeL

CONFERENCE SCHEDULE

Time		Topic/ Agenda	Responsibility/ Resource Person		
DAY-I: 26 th June 2021 (Morning Session)					
10:00 am – 10:05 am	Online	Online Joining followed by a Gracious Welcome to all Attendees Prof. Shaikh Abusufiyan, Convener, nCiTeL			
10:05 am - 10:10 am	Recita	tion & Translation of verses from Holy Qur'an	Convener, herren		
10:10 am - 10:15 am		Opening Remark	Dr. Abdul Razak Honnutagi, Director, AIKTC		
10:15 am -10:25 am	Presidential Remark		Dr. Zahir I. Kazi, President, Anjuman-I-Islam		
Dear	Session Facilitator: Dr. Rajendra Magar Dean, Academics, Head SoET-Civil Engineering, IQAC Coordinator, AIKTC				
10:30 am - 11:30 am	Keynote Address – I "Realigning & Redesigning Education Post Covid-19 Pandemic"		Dr. Basavaraj Katageri Principal, KLESCET, Belgaum		
11:30am - 1:00 pm	Keynote Address – II: "Tools & Techniques for Active Learning"		Dr. Arshad Salema Sr. Lecturer, Monash University, Malaysia		
		LUNCH BREAK (1:00 PM – 2:	00PM)		
		Oral Presentations (2:00 pm to 4	:00 pm)		
	[OAY I: 26 th June 2021 (Afternoor	n Session)		
Time	OP Code	Title	Name of Presenter		
Session Chair: Prof. Tabrez Khan, HoD, Computer Department, School of Engineering & Technology					
2:00 pm To 2:10 pm	OP1	Innovative learning is boon or bane for the holistic society	Abhilasha N ¹ , Girisha M C ² ; ¹ BMS Department, Mulund College of Commerce, Mumbai, ² Department of Commerce, Government College (Autonomous), Mandya, Karnataka.		
2:10 pm To 2:20 pm	OP2	Analysis of Implementation of Innovative Teaching Learning Method in Conventional Teaching Method	A. A. Gudadhe ¹ , A. D. Deshmukh ² ; ¹ Datta Meghe Institute of Engineering, Technology and Research, Wardha, ² Government Polytechnic, Amravati.		
2:20 pm To 2:30 pm	OP3	Predictive Analytics of Student's Performance In Higher Education Using Machine Learning	Prof. Rehaal Qureshi; AIKTC, New Panvel		

Time	Topic/ Agenda		Responsibility/ Resource Person
2:30 pm To 2:40 pm	OP4	Case Study on Innovative Technological Platforms Used in Teaching, Learning or Assessment at Wisdom Kids School: WhatsApp & YouTube based Online Teaching-Learning	Mr. Mohamed Aamir Dalvi; Wisdom Kids Primary School, New Panvel
2:40 pm To 2:50 pm	OP5	Library Management in COVID- 19 Pandemic: Case Study of AIKTC-KRRC	Mrs. Shaheen Momin; AIKTC, New Panvel
2:50 pm To 3:00 pm	OP6	Contemporary Teaching Learning Approaches for Engineering Education	Prof. Tahoora Qureshi; AIKTC, New Panvel
3:00 pm To 3:10 pm	OP7	A Case Study of Best Practices, Innovative Pedagogical Approaches Used to Teach Pharmacognosy Course	Prof. Masarrat Mukadam; AIKTC, New Panvel
3:10 pm To 3:20 pm	OP8	An activity conducted to understand the rational and identify the error in the prescription as a part of activity based and participative learning pedagogy	Prof. Mirza Anwar Baig; AIKTC, New Panvel
Session Moderator: Prof. Fauwaz Parkar, Coordinator, nCiTeL			

CONFERENCE SCHEDULE

		DAY-II: 27th June 2021 (Morning Session	
Time		Topic/ Agenda	Responsibility/ Resource Person
		Session Facilitator:	
		Prof. Tabrez Khan, i/c HoD-SoET-CO	
10:30 am - 11:30 am	Keynote address – III "Role of Teacher in Research & Innovation"		Dr. Sudhakar Umale, Head Mech. Dept, SPCE Mumbai
11:30 am – 1:00 pm	Keynote address – IV "Flipped and Blended Classroom- The need of the Day"		Dr. Srinivasa K G Professor, NITTTR, Chandigarh
		LUNCH BREAK (1:00PM – 2:00PM)	
		Oral Presentations (2:00 pm – 4:00 pm)	
		SCHEDULE	
Time	OP Code	Title	Name of Presenter
Session chair: Prof. Rizwan Farade, HoD, Electrical Department, School of Engineering and Technology			
2:00 pm To 2:10 pm	OP9	Acceleration learning strategies for slow learners	Prof. Pallavi M. Chaudhari; Dr. D. Y. Patil COE Pune
2:10 pm to 2:20pm	OP10	The Design Pedagogy - Introspection and Reimagining Architectural Education	Prof. Abhishek Kadam; AIKTC, SoA, New Panvel
2:20 pm To 2:30 pm	OP11	Pedagogical Approaches for Understanding and Responding to the Context	Prof. Prajakta W, Prof. Parag R; AIKTC, SoA, New Panvel
2:30 pm To 2:40 pm	OP12	Advance Digital Pedagogical Approaches in Education	Dr. Sandip Zine; BNCP COP, Mumbai
2:40 pm To 2:50 pm	OP13	Use of You Tube for Blended mode of Learning.	Prof. Firoz Nadaf; AIKTC, SoET, New Panvel
2:50 pm To 3:00 pm	OP14	Case Study on Industry-based Skill Development of AIKTC learners through Coursera MOOCs	Prof. Wasim Shaikh and Prof. Rohan Dasgupta; AIKTC, SoET, New Panvel
3:00 pm To 3:10 pm	OP15	New approach to assessment: A Quizizz	Prof. Saba Shaikh; AIKTC, SoP, New Panvel
3:10 pm To 3:20 pm	OP16	Critical Analysis of Student Results Using Tableau/ Semester Result Analysis	Prof. Iftekar Patel; AIKTC, SoET, New Panvel
3:20 pm to 3:30 pm	OP17	Innovative way of Participative, Interactive and Experiential Group Learning: A Case Study	Prof. Atul Nilkanth Meshram; AIKTC, SoET, New Panvel

CONFERENCE SCHEDULE

Time	Topic/ Agenda	Responsibility/ Resource Person		
DAY-III: 28 th June 2021 (Morning Session)				
Session Facilitator: Prof. Raj Mhatre, Dean, SoA				
10:30 am - 11:30 am	Keynote address – V "Developing Own MooCs"	Dr. Sadiq Sait Founder & CEO, uLektz Learn. Sol. Pvt. Ltd		
Panel Discussion Session Chair: Dr. Shariq Syed, Dean, SoP				
11:30 am – 1:00 pm	Panel Discussion: Multimodal Learning: Advantages and Challenges	Mr. Sudhanshu Mishra Executive Coach, Motivational Speaker, Influencer Dr. Abdul Razak Honnutagi Director, AIKTC Dr. Dodagoudar Professor, IIT Madras, Chennai Dr. Asma Shaikh Principal, AI's Akbar Peerbhoy College of Education, Navi Mumbai		
	LUNCH BREAK (1:00PM -	2:00PM)		
	Session Facilitator: Prof. Shaikh Abusufyan, Controller, CiTeL			
2:00 pm to 3:30 pm	Keynote Address - VI Technology Enabled Exuberant Teaching and Learning	Dr. Sunil Kute Dean, Academics K. K. Wagh Inst. of Engg. Education & Research, Nasik		
3:30 pm to 4:00 pm	Valedictory Program Presided By Mr. Burhan Harris Hon. Exe. Chairman, BINM, Anjuman-I-Islam Followed By Vote of Thanks			

Speakers Profile



DR. BASAVARAJ KATAGERI Principal

KLE Dr. M.S Sheshgiri College of Engineering and Technology, Udyambag, Belgaum-590008, Karnataka

Email: <u>basavaraj971@gmail.com</u>

Dr. Basavaraj Katageri is a 1987 batch Civil Engineering graduate from Bangalore University. He completed his master degree from Indian Institute of Science, Bangalore in 1995 in Geo Tech Engineering and furthered his pursuit to complete his Ph.D. from Visvesvaraya Technological University, Belagavi in 2008.

His passion for education droves him to join as a faculty of Civil Engineering in Bagalkot Engineering College in 1997 and rose to a position of Professor in 2008. His adventurous nature made him accept the reigns as a Principal of the upcoming KLE Engineering College in Chikodi in 2008. After successfully establishing it, he was given the reigns of KLE Dr. M. S. Sheshgiri College of Engineering and Technology, Belagavi as Principal in 2014. He has got two cycles of NBA successfully done and all UG programs are now NBA accredited.

He has more than 60 papers published in International journals and conferences. He has spoken at conferences in Malaysia, Singapore, Lisbon (Portugal) and Sri Lanka. To name a few, He has been active as:

- a) Chief Coordinator, for Karnataka & Belagavi region, VTU theory exams Dec-Jan 2016-17.
- b) Member, Advisory committee, NSS Unit, VTU Belagavi.
- c) Member, Equivalence Committee, VTU Belagavi.
- d) Member, Malpractice Committee, VTU Belagavi

e) Member, Academic Senate, Visvesvaraya Technological University, Belagavi.

He is also

- Life Member of Indian Society of Technical Education, India. LM-657
- Life Member, Institute of Engineers, India. M/122140/4
- Life Member, Indian Society of Earthquake Engineering, India. LM-1235
- Life Member, Indian Geotechnical Society, India. LM-2494
- IEEE senior Member

He has implemented many novel teaching and learning systems and is attributed as his brain child. Master tutorial, Social Innovation, Multidisciplinary projects, Learning factory are some of them. He may be contacted for more details on this.

Keynote Address

Re-aligning & Re-designing Education Post Covid-19 Pandemic

Dr. Basavaraj Katageri, M.E., PhD

Principal, KLE Dr. M.S Sheshgiri College of Engineering and Technology Udyambag, Belgaum-590008, Karnataka

Abstract:

An immediate and effective response in educational segment to the crisis of Pandemic was to go digital. Developing robust online platforms has become synonym to quality and continuity in learning. Yet in a developing country like India having vast disparity in socio-economic strata of students and the quality of educational institutions, the shift has been a tough task. The digital divide has disintegrated the traditional education and needs urgent attention from both public and private sector players as the crisis continues. In future, ICT skilled teachers, refreshed curricula and effective learning tools will ensure students stay involved and active in the learning process.

The economy has taken a severe jolt globally, not sparing the educational sector too. The pandemic has left students in limbo due to increase in family unemployment destabilizing the financial capacity of Indian homes. This can cause a drop in enrollments and also challenge the tuition fees. On the flipside, the pandemic could also help in redesigning the fee structures and create a more cost-effective programme. Post-pandemic times could see a blend of e-learning and mainstream face-to-face teaching with a boost from traditional universities and the ed-tech sector. Digital learning is leading the charge as a bastion, with multidisciplinary and modular pedagogy that afford transferable skills and customized learning. Faculty is being called upon to redesign course content to meet the current and future needs. Moving away from traditional pedagogies in most average institutions, the demand for quality educators will shape the way higher education moves

forward from this crisis. Education today is not the process of gaining information. Any person can have access to immense data and information nowadays through different websites and e-based platforms. But, can information be transformed into knowledge without education? Only education can train us to interpret different issues and events in our lives, and hence, colleges and Universities are here to stay!

Traditional families where boys are still prioritized over girls in terms of imparting better and higher education, dropout rates of girl-students during and after this pandemic could be much higher than boys thus impacting the Gross Enrolment Ratio (GER) envisaged by the New Education Policy (NEP) 2020. Education is one of the areas in India, where the uneven impact of COVID-19 is more evident than most. The indefinite closure of schools, colleges and universities may reverse years of progress in access to education in our country. To sustain a blended learning system that will take care of any such situation in future for any reason, the education will be effective only if:

- Adequate government financial support are allocated for providing access to online educational facilities in terms of internet and devices, in particular, for the students belonging to the economically weaker sections
- ii. A good, reliable and stable broadband facilities throughout the country for quality online learning.
- iii. Educational institutions are equipped with state-of-the-art ICT (Information and Communication Technologies) facilities for imparting quality online education.
- iv. Teachers are sufficiently trained for offering online lessons using different digital platforms and technologies like RA, VR and gaming.
- v. Necessary arrangements are made for offering lessons in digital platforms in the vernacular languages of India.

- vi. Verifiable and proper methods for assessing the quality of the learners and teachers are developed and familiarized among both students and teachers.
- vii. Adequate arrangements are made for imparting online education to differently-abled students.

The fulfilment of the above would be able to create a sustainable alternative method of imparting quality education to turn India's demographic dividend into valuable human resources by imparting advanced skills to compete in the world in the 21st century. The COVID-19 pandemic is an acid test for India. But it also gives us an opportunity to turn this crisis into a driving force for achieving India's aim to provide quality education to all. The pandemic is a cause for pause but not to paralyze the education system. The pandemic has also challenged the suitability, viability and sustainability of university operating models, practices and systems. If they are to survive and thrive after the pandemic, universities must reassess and adapt their strategies.

COVID-19 has many negative implications for higher education. These include the disruption of academic programmes and research, financial challenges, and health and well-being of staff and students. Graduates also face a constrained labour market due to the poorly performing economy that has been aggravated by the pandemic. The pandemic has silver linings and has given a springboard for re-thinking the future of higher education and spur the strengthening of the pact between universities, the state, business, society and communities.

Several organizations are also looking beyond college students to target adult learners, such as people with full-time jobs or those looking to upskill or reskill. Virtual reality (VR) creates an immersive 3D environment that a user can explore. Augmented reality (AR), on the other hand, superimposes digital elements such as visuals, sound, and text onto a user's surroundings

The education industry is experimenting with artificial intelligence (AI) applications. Some institutions are using AI to help personalize learning, improve memory retention, teach languages, or increase accessibility to lessons. Indian education system is a time-tested system right from the times of the Nalanda University. No pandemic or any such situation can harm the education system as Indian teachers, Indian students and Indian Government are highly resilient and adaptable to changes. Salute to all teachers, students and Education policy makers!





DR. ARSHAD ADAM SALEMA,
Senior Lecturer & Master of Advanced
Engineering Course Coordinator

School of Engineering, Monash University Malaysia

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Dr Arshad Salema is a Senior Lecturer at Monash University Malaysia, branch campus of Monash University, Australia. He is a course coordinator (Director) position for Master of Applied Engineering. He is a registered Chartered Engineer and Member of Institution of Engineers, India, Life member of Indian Institute of Chemical Engineers, and Graduate Engineer Member with Board of Engineers, Malaysia. He has won teaching awards at Transforming Education Through Trailblazing Innovations (TETI) 2017, campus level and School of Engineering Award for Excellence in Education & Teaching, 2019. He has published more than 50 articles in international reputed journals and conferences with Google h-index of 22.

He graduated his Bachelor's in Chemical Engineering from University of Pune, India, Master's in Chemical Engineering and PhD in Mechanical Engineering from Universiti Teknologi Malaysia. He did postdoctoral at University of New Brunswick, Canada. His research area is focused on renewable energy, process design and development of thermo-chemical system, microwave processing, energy efficiency and sustainability. He is also a scientific technical committee member and Chair for Malaysia country of PyroAsia, a forum established to promote Pyrolysis related research in Asia and bridge with International Pyro community.

Keynote Address

Tools & Techniques for Active Learning

Dr. Arshad Adam Salema, PhD, MIE, CEng (India)

Senior Lecturer & Master of Advanced Engineering Course Coordinator, School of Engineering, Monash University Malaysia

Abstract:

Keeping the attention of today's generation "Z" and future generation is a challenge in Teaching and Learning (T&L). Student's attention continues to drop after the first 10 to 15 min of class. These generation has a new attitude, aptitudes and expectations. They prefer more active and studentoriented over traditional passive teacher-cantered approach. A monotonous classroom (teacher-cantered) refers to an inappropriate teaching style in which the T&L is classroom controlled, there is a lack of motivation and no opportunity to participate in class room discussion, etc. This creates a complete mismatch between the faculty and students thus resulting in decrease of credibility and several problems. The recent and unprecedented Covid-19 pandemic outbreak has further elevated the problem of regular T&L process in particular the practical hands-on, and laboratory sessions. The situation has challenged the entire education system and forced educators to change the pedagogy overnight to online. Even before pandemic, the active learning was very minimal during face to face classroom, so one can understand how the Covid-19 pandemic might have impacted the T&L pedagogy. In most cases, online teaching does not let students to engage and practice hands-on skills effectively and thus it affects the T&L quality.

Thus, paradigm shift from the teacher-focused to student-focused presents more interactive and participative approaches of T&L. Active T&L let students be active, discover the solution, make them independent learners,

understand and remember, develop higher-order thinking and life-long skills. Student can even plan, monitor, and evaluate their own learning. Active T&L encourages the student participation and aids the development of students' self-learning and communication skills. It also uses higher-order Bloom's Taxonomy levels such as application, synthesis, evaluation, and analysis.

Activities such as surveys, gaming questions, polling, think-pair-share, videos, case studies, collaborative and digital tools are some of the techniques of active learning. These activities make learning more interactive and enjoyable for students. They also provide an opportunity for students to engage, energize the classroom environment, and deliver the course more effectively. Active learning provides student with Cognitive, Interpersonal and Intrapersonal Skills (CIIS) that are necessary for their life long career.

Therefore, the main objective is to present the active T&L strategies, tools and techniques that can be used both face to face and online based. The presentation covers active learning strategies such as Kahoot web-based interactive gaming, think-pair-share, flipped classroom, poster and gallery, polling, coggle, padlet, pinup, Flux, canva, virtual conference, LAYOP, group projects, etc. Although active learning requires extra effort for the teacher, it can provide greater benefits for students that may further lead to better retention of materials. In conclusion, face to face as well as online active learning strategies has not interrupted the T&L and student's performance that can retain or excel education quality. Despite the pessimistic impact on the higher education by Covid-19, it has also brought optimistic light to develop new T&L strategies.

Speakers Profile



DR. SUDHAKAR UMALE
Head and Associate Professor,
Mechanical Engineering Department,
Sardar Patel College of Engineering,
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Dr. Sudhakar Umale had his Bachelor of education in Mechanical Engineering in July 1987 from Amravati University. He did his Master of Engineering in August 2001 from Mumbai University and PhD in material sciences in May 2015 from VNIT, Nagpur. He has over 34 years of teaching experience in college of engineering. He has membership of various scientific and professional societies including life membership of ISTE (LM 18795); Life Membership of ISNT (LM 6278); IET Membership (Number 1100331128); SAE INDIA Membership (Number 7150510039) and Quality Circle Forum of India Membership (Number: LM 049905116441). He has many achievements and awards to his credits including best technical paper award 2015 by Indian Institute of Foundrymen; SAEINDIA GURU AWARD 2016-17; Governing Body Member of SAEINDIA Western section. He is recognized PhD Supervisor in Mumbai University. He Worked as Judges in different technical events at College, National and international level. He worked as a technical judge, reviewer, editorial board member and organizing committee member for about 38 national, international Conferences and Journals. He has delivered 48 Expert Lectures in the various FDP/STTP and Webinar. He has conducted and coordinated 12 courses in his college. He has published 50 papers in the various journals and conference proceedings. He has attended 90 short-term courses.

Keynote Address

Role of Teacher in Research and Innovation

Dr. Sudhakar Umale, M.E., PhD

Head and Associate Professor, Mechanical Engineering Department Sardar Patel College of Engineering, Andheri (W), Mumbai 400 058.

Abstract:

Teacher is the backbone of education system. He manages different functions in the institute. He handles technical and non-technical assignments. He is playing lots of work in the institute like facilitator, role of leader in the classroom and outside the classroom, role of researchers. He needs to solve personal problems of the students and he must know how to solve the critical problems as a counsellor. Technical teachers must consider the social and environmental impact of their work. They should prepare students to function productively as engineers in the industries, government jobs, and academic. Teacher can help to develop students to intellectual depth, better communication skills and to develop habit of lifelong learning. Teachers bring their expertise to their classroom and by actively sharing the knowledge they have gained through research, they build a professional community and shape the minds within that community. Research and motivation are two fundamental gradients for research. Without proper inspiration and adequate motivation, it is very difficult to research. Innovation in education encourages teachers and students to explore research and use all the tools to uncover something new. It involves a different way of looking at problems and solving them. The thinking process that goes into it will help students develop their creativity and their problem-solving skills. Research in engineering education is the improvement of education and used for future issues like recruitment of the engineering students.

Speakers Profile



DR. SRINIVASA K. G.,

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Dr. Srinivasa K. G. is currently working as a Professor in the Department of Information Management and Emerging Engineering at NITTTR, Chandigarh. He received his Ph.D. in Computer Science and Engineering from Bangalore University in 2007. He is the recipient of All India Council for Technical Education - Career Award for Young Teachers, Indian Society of Technical Education - ISGITS National Award for Best Research Work Done by Young Teachers, Institution of Engineers (India) - IEI Young Engineer Award in Computer Engineering, Rajarambapu Patil National Award for Promising Engineering Teacher Award from ISTE – 2012, IMS Singapore - Visiting Scientist Fellowship Award. He has published more than 150 research papers in International Conferences and Journals. He has visited many Universities abroad as a visiting researcher – He has visited University of Oklahoma, USA, Iowa State University, USA, Hong Kong University, Korean University, National University of Singapore, University of British Columbia, Canada are his few prominent visits. He has authored eight text books in the area of Internet of Things, Data Analytics, Soft Computing, Social Network Analysis, High Performance Computing, R Programming etc. with prestigious international publishers like Springer, TMH, Oxford, Cenage, and IGI Global. He has edited research monographs in the area of Cyber Physical Systems, Fog Computing and Energy Aware Computing with CRC Press and IGI Global. He has been awarded BOYSCAST Fellowship by DST, Govt. of India, for post-doctoral fellowship at University of Melbourne,

Australia towards conducting collaborative Research with Clouds Laboratory in the area of Cloud Computing. He is the principal Investigator for many funded projects from AICTE, UGC, DRDO, and DST. He is the senior member of IEEE and ACM. His research areas include Data Mining, Machine Learning, IOT, Cloud Computing and Digital Pedagogy. His recent research areas include Innovative Teaching Practices in Engineering Education, pedagogy; outcomes-based education, and teaching philosophy.

Keynote Address

Flipped and Blended Classrooms - The need of the day!

Dr. Srinivasa K. G., Ph.D.

Professor in the Department of Information Management and Emerging Engineering, NITTTR, Chandigarh.

Abstract:

The countrywide lockdown since March 2020 due to COVID-19 pandemic has brought drastic changes in the Indian education system. Today, many higher education institutions offer online delivery as an alternative and/or addition, to provide more flexibility to learners, specifically in the current COVID 19 Pandemic. The conventional teaching method to the technology-driven virtual mode of teaching provided opportunities with challenges to academic stakeholders.

Now with the new session, discussions on the reopening of educational institutions are going on. Hence, it is time to review the learning that took place during this pandemic situation. Learners being confronted with such services come with different expectations of what that means to their learning paths and behaviors. Learning Analytics is a relatively new and innovative way of making learner behavior and performances explicit by analyzing large learners' feedback data. The contents of the talk are as follows:

- Need for change in Teaching Learning scenario
- Generation Gap Addiction to Electronic Gadgets
- Abundant Digital Repository
- Mission and Vision of Government
- Mobile and Internet
- Social Media and Its Importance
- Moving from Traditional Universities to Virtual Universities

- Need for change in Assessment Patterns
- Assessment The Philosophy and Psychology
- Pros and Cons of Digital Pedagogy

We discuss the need of digital pedagogy for higher education with some case studies and practices, the role of active learning, experiential learning and project-based learning integrated with Web 2.0, the necessity of MOOCs, OERs, Gaming for Education, and other practical aspects of implementing flipped and blended classrooms.

Speakers Profile



DR. SADIQ SAIT

Founder & CEO uLektz Learning Solutions Pvt Ltd.

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Dr. Sadiq Sait is the founder and CEO of uLektz Learning Solutions Private Limited, an education technology company working with various colleges, universities, academic publishers and ministries of education worldwide. He is a Computer Science graduate with MBA and M.Phil. in International Business.

Starting career as an educational entrepreneur, Sadiq has 17+ years of experience in IT and ITES companies ranging from startups to multinationals such as HP, Microsoft Corporation and Zoho. His passion for creating positive social impact through technology and education, pushed him to become an education technology consultant.

Sadiq founded uLektz.com to help higher education institutions leverage innovative digital technologies and effective educational pedagogies to:

- Enhance education with engaging teaching and learning experiences.
- Ensure students success with employability skills and job placements.
- Improve administrative efficiency with streamlined processes.
- Adhere to the compliances of various accreditation and regulatory bodies.
- Stay aligned with the recommendations of MHRD, UGC, AICTE, NAAC,
 NBA, NIRF, etc.

Currently, uLektz platform is being used over 1 million students and educators from thousands of higher educations.

As an education technology consultant, Sadiq has extensively travelled to more than 30 countries to present and demonstrate ICT/eLearning solutions for education and skill development, and deliver education and technology related talks on various international conferences, seminars and workshops.

Keynote Address

Developing Own MooCs

Dr. Sadiq Sait, MBA, MPhil.

Founder & CEO, uLektz Learning Solutions Private Limited

Abstract:

Since the inception, Massive Open Online Courses (MOOCs) have been democratising learning and reshaping traditional training models. Due to increasing adoption of MOOCs, colleges and universities worldwide are under pressure to reinvent themselves and offer courses and programmes that are open, flexible and industry-oriented.

Today many higher education institutions are setting up their own online learning platforms / MOOCs to provide prospective students an experience of their offerings and market their best courses and best professors to attract students to their full-time courses. MOOCs are no more considered as competition by the universities and colleges, instead MOOCs are used as a branding and student marketing tool.

In this session will address the following topics:

- 1. What is MOOC?
- 2. How can a college or university setup MOOCs platform?
- 3. How to create online courses for MOOCs?
- 4. How to promote and attract more student's registrations?
- 5. How to deliver courses online?
- 6. How to access learners progress and performance?
- 7. How to conduct proctored exams and issue certificates?

Speakers Profile



DR. SUNIL KUTE

Dean (Academics)

K.K.Wagh Institute of Engg. Edu & Res.

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Dr. Sunil Kute, a distinguished alumni of BITS, Pilani, is presently working as Dean (Academics) at K.K.Wagh Institute of Engineering Education & Research, Nasik. He has an experience of Teaching, Research, Testing & Consultancy and Administration over a period of 28 years. His Research area includes Concrete technology in Structural Engineering & Dams in Water Resource Engineering. He has guided hundreds of U.G. & P.G. projects and 6 research scholars have completed Ph.D. under him and 4 more are pursuing their Ph.D. He possesses the title of "Professional Engineer" offered by Engineering Council of India. He has visited 13 different countries of the world, chaired the technical sessions and published 106 research papers in peer reviewed Journals and National & International conferences.

He has been adorned with 14 awards which includes "Best Innovative Teaching Award' and 'Best Teacher Award ' of University of Pune. His paper has been awarded with 'Best Paper Award' in International Concrete Congress jointly organized by U.K & India. His educational You Tube channel is popular amongst the students and has received more than 1, 47, 000 views so far.

He was president of Architects and Engineers Association, Nasik and Executive council member of Association of Consulting Civil Engineers, Nasik centre. He is also, a life member of about 18 professional bodies.

Writing is his hobby and he writes on technical and social issues. He has written more than 150 articles in leading newspapers of Maharashtra including column in Maharashtra Times. He is recipient of 'Best Social Writing Award" of the Daily Lokmat at the state level for 3 successive years. He has worked as Chairman, Board of Studies in Civil Engineering, member of Senate, member of Academic Council and member of Faculty of Engineering in Savitribai Phule Pune University.

Currently, he is Vice President, General Body of Nashik Shikshan Prasarak Mandal, a 102 years old premier educational organization of country running 48 educational units. He has been assigned with the responsibility of "State Quality Monitor" of Prime Minister Gram Sadak Yojana for Maharashtra State and has inspected the roads more than 2000km.

Presently, he is working as member on CED 2 - Cement and Concrete Committee of Bureau of Indian Standards, New Delhi.

Valedictory Keynote Address

Technology Enabled Exuberant Teaching and Learning

Dr. Sunil Kute, PhD

Dean (Academics),

K.K.Wagh Institute of Engineering Education and Research, Nasik

Abstract:

It is said that educational institutes are the only institutes where nobody goes willingly. Parents force the students to go to schools and colleges. Have we ever noticed the reaction of the students when it is declared that there will be no classes? The atmosphere of the entire class becomes cheerful. All the students are excited. What makes learning so painful? If the output is directly proportional to input, is our teaching so painful? As teachers, we need to investigate the causes of this phenomenon. Such investigation will reveal "What makes learning joyful?" We, the teachers, teach the Subject. Let us teach the Students! To teach the subjects, we need notes, ppts, syllabus etc. To teach the students, we need mentoring, experiments, creativity, innovations, interest, love and now a days, the effective use of Technology! For Exuberant Teaching and Learning, we will have to shift the focus from Learning by Listening to Learning by Observing, Doing, Experimenting and Problem solving through active and blended learning. The present era of OBE demands the paradigm shift from conventional Teaching-Learning to Technology Enabled Exuberant Teaching and Learning. A sharing of new style of drafting Unit Learning Objectives (ULO) and how to transform it into joyful learning with the help of technology is the take way of the keynote.

Keywords:

Exuberant Teaching – Learning, OBE, ULO, Problem solving, Active learning, Blended learning.

Panelist Profile



DR. SUDHANSHU MISHRA

Executive Coach, Motivational Speaker, Influencer

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Sudhanshu Mishra has almost 3 decades of corporate experience holding leadership positions in BD, Sales, Marketing, Product management, Partners and Alliances, in areas of IT products, services and e-learning, across India and Middle-east.

Sudhanshu is passionate about working with people and helping them grow. He has an ACC certification from ICF (International Coaching Federation) and has trained and coached several people in areas spanning leadership, mindfulness, strategic thinking, people management, influencing stakeholders, effective decision-making, impactful communication, stress and conflict management as well as in working towards other life goals. He is pursuing coaching as a calling and thoroughly enjoys the process of helping his clients achieve their goals in the smartest, fastest and most effective manner.

Sudhanshu's strengths include working with people, relationship building, public speaking, besides Sales management, people management and account management.

In his last corporate job, Sudhanshu was responsible for managing a large business unit at a technology company. He has done several successful stints with various companies such as Wipro, HP, Oracle, CA Technologies, Xerox and others in the technology sector, and managed large teams. His passion to mentor people and helps them grow has helped him manage high performance teams successfully.

Sudhanshu has an MBA from IIM Lucknow and a B.E. in Computer Science. He is an Air Force kid, born in Dehradun, and raised at various places across India. He now lives in Delhi with his family.

Panelist Profile



DR. ABDUL RAZAK HONNUTAGI

Founding Director, AIKTC

B.E. - Civil Engineering;

M.E. (IIT Roorkee / Erstwhile University)

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Dr. Abdul Razak Honnutagi is presently working as a Director of Anjuman-I-Islam's Kalsekar Technical Campus. He is the living idiom in the field of education who happened to be born at the right time at the right place. If one takes a closer look at the alchemy of his personality, two distinct virtues pop-up besides perseverance and hard work, they are Pioneering spirit and willingness to Perfection. He has become the person he is now because of the virtues and values that was developed and nurtured in him during his education.

Dr. Abdul Razak pursued his graduation in Civil Engineering from Basaveshwar Engineering College of Karnataka University in 1987 and completed his Masters in Civil Engineering from IIT Roorkee with the specialization in Building Science & Technology in 1994. He received the Doctorate of Philosophy i.e. Ph.D degree from IIT Bombay in 2014. He has more than 32 years of Professional experience in the field of Engineering education & Research. He began his career in teaching as lecturer of Civil engineering at Basaveshwar Engineering college in Karnataka and worked there for 10 years. He was awarded with the SILVER JUBILEE MEMENTO for his dedicated services at Basaveshwar Engineering college. He then joined M. H. Saboo Siddik College of Engineering, Mumbai as Asst. Professor of Construction Engg. While working in Saboo Siddik College of Engg., Sir

received THE BEST TEACHER AWARD amongst various colleges of Anjuman-I-Islam in the year 1999.

He continued the art of attaining success through progression in his teaching and got promoted as Principal of M. H. Saboo Siddik Polytechnic, Mumbai. During his tenure, Saboo Siddik Polytechnic was adjudged as the BEST POLYTECHNIC OF MAHARAHTRA STATE in the year 2000. Also, the institute was cited as ROLE MODEL POLYTECHNIC during 6th ISTE Annual Convention. He has inherently been gifted with the art of writing and speaking, and the ability to capture the hearts of local, national, international reader's and audiences through research paper presentation and publication in the field of Science and Technology. Sir has published numerous articles in International Journals and has received the OUTSTANDING RESEARCH PAPER AWARD in the International Engineering and Technology Education Conference held at Taylor's University, Malaysia.

Apart from his specialisation in Structural Engineering, he has research interest in System Dynamics Simulation, Quality Excellence, Outcome based Engineering Education, Knowledge Management, Learning Organisation, Organizational Development, Leadership & Team dynamics, Collective Intelligence and the list goes on.

He is the Life member of Indian Society for Technical Education (LMISTE) and recently he has been conferred FIE: Fellow of Institution of Engineers (India) in the year 2016. His excellence not only lies in teaching and research but also in social and community bodies. He is the founder trustee of Secular Education Trust, Mumbai. He received CITATION FROM LIONS CLUB INTERNATIONAL, Mumbai for his distinguished services in the year 2003-04. Recently Dr. Abdul Razak sir received "LOKMAT PANVEL GAURAV PURSHKAR" on 22.08.2019 organised by Shri Ramsheth Thakur Social Organisation, Panvel.

In this way, he has been capturing the highest office or state of his life by advancing through the ladder from being a classroom teacher to a principal to the current position as the Founding Director of Anjuman-I-Islam's Kalsekar Technical Campus, New Panvel, Navi Mumbai, since its inception in 2011. This campus has been labelled as having world campus infrastructure by many distinguished personalities such as Cabinet Minister Mr. Mukhtar Abbas Naqvi; Advertisement Guru from Bollywood Mr Bharat Dhabolkar; Chief Imam Dr. Umer Ahmed Ilyasi; Renowned International Industrialist Mr. Rizwan Adatia of RA Foundation and so on. In a very short span of time, this campus has been declared as a Role model campus for the entire Anjuman-I-Islam. We proudly say that Dr. Abdul Razak is a humble leader who developed a vibrant team and Kalsekar Technical campus was conceived by him and got developed from scratch.

Index & Schedule of Oral Presentations

Day 1, 26th June 2021 (Time: 2:00 pm to 4:00 pm)

Sr. No.	OP code	Time	Title of oral presentation	Author and Affiliation
1	OP1	2:00 pm To 2:10 pm	Innovative learning is boon or bane for the holistic society	Abhilasha N¹, Girisha M C²; ¹BMS Department, Mulund College of Commerce, Mumbai, ²Department of Commerce, Government College (Autonomous), Mandya, Karnataka.
2	OP2	2:10 pm To 2:20 pm	Analysis of Implementation of Innovative Teaching Learning Method in Conventional Teaching Method	B. A. Gudadhe ¹ , A. D. Deshmukh ² ; ¹ Datta Meghe Institute of Engineering, Technology and Research, Wardha, ² Government Polytechnic, Amravati.
3	OP3	2:20 pm To 2:30 pm	Predictive Analytics of Student's Performance In Higher Education Using Machine Learning	Rehaal Qureshi; AIKTC, SoET, New Panvel
4	OP4	2:30 pm To 2:40 pm	Case Study on Innovative Technological Platforms Used in Teaching, Learning or Assessment at Wisdom Kids School: WhatsApp & YouTube based Online Teaching-Learning	Mohamed Aamir Dalvi; Wisdom Kids Primary School, New Panvel
5	OP5	2:40 pm To 2:50 pm	Library Management in COVID-19 Pandemic: Case Study of AIKTC- KRRC	Shaheen Momin; AIKTC, New Panvel
6	OP6	2:50 pm To 3:00 pm	Contemporary Teaching Learning Approaches for Engineering Education	Tahoora Qureshi; AIKTC, SoET, New Panvel
7	OP7	3:00 pm To 3:10 pm	A Case Study of Best Practices, Innovative Pedagogical Approaches Used to Teach Pharmacognosy Course	Masarrat Mukadam; AIKTC, SoP, New Panvel
8	OP8	3:10 pm To 3:20 pm	An activity conducted to understand the rational and identify the error in the prescription as a part of activity based and participative learning pedagogy	Mirza Anwar Baig; AIKTC, SoP, New Panvel
9	OP9	3:20 pm To 3:30 pm	Effectiveness of Problem based learning pedagogy in teaching learning process.	Marial Lal; AIKTC, SoP, New Panvel

Day 2, 27th June 2021 (2:00 pm to 4:00 pm)

Sr. No.	OP code	Time	Title of oral presentation	Author and Affiliation
1	OP10	2:00 pm To 2:10 pm	Acceleration learning strategies for slow learners	Pallavi M. Chaudhari; Dr. D. Y. Patil College of Pharmacy, Akurdi, Pune - 411044
2	OP11	2:10 pm To 2:20 pm	The Design Pedagogy - Introspection and Reimagining Architectural Education	Abhishek Kadam; AIKTC, SoA, New Panvel
3	OP12	2:20 pm To 2:30 pm	Pedagogical Approaches for Understanding and Responding to the Context	Prajakta W & Parag R; AIKTC, SoA, New Panvel
4	OP13	2:30 pm To 2:40 pm	Advance Digital Pedagogical Approaches in Education	Dr. Sandip Zine; Dr. Bhanuben Nanavati College of Pharmacy, Vile Parle West, Mumbai,
5	OP14	2:40 pm To 2:50 pm	Use of You Tube for Blended mode of Learning.	Firoz Nadaf; AIKTC, SoET, New Panvel
6	OP15	2:50 pm To 3:00 pm	Case Study on Industry-based Skill Development of AIKTC learners through Coursera MOOCs	Wasim Shaikh and Rohan Dasgupta; AIKTC, SoET, New Panvel
7	OP16	3:00 pm To 3:10 pm	New approach to assessment: A Quizizz	Saba Shaikh; AIKTC, SoP, New Panvel
8	OP17	3:10 pm To 3:20 pm	Critical Analysis of Student Results Using Tableau/ Semester Result Analysis	Iftekar Patel; AIKTC, SoET, New Panvel
9	OP18	3:20 pm to 3:30 pm	Innovative way of Participative, Interactive and Experiential Group Learning: A Case Study	Atul Nilkanth Meshram; AIKTC, SoET, New Panvel

Oral Presentations Abstracts

OP-01: Is Innovative learning a boon or bane for the holistic society?

Abhilasha N¹, Girisha M C²;

¹BMS Department, Mulund College of Commerce, Mumbai, ²Department of Commerce, Government College (Autonomous), Mandya, Karnataka.

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Abstract

There was a line on the walls of every education institution "Use mobile phones are strictly prohibited in class" but from 2019 onwards all classes are in Online mode. Learning process across the globe closed due to Covid-19 pandemic. Every educational institution shifted their conventional method of teaching to online method of teaching using several online platforms. But in India online learning process impacting negatively on development of students due to several reasons such as lack of concentration, lack of internet facility, network issues and loss of learning. The major impact is in the long run will be students standing away from the social interaction behavior. Using internet for entertainment is common but for online class and lesson creates a big challenge in the minds of children and their parents. The gap between students and society might be negative in future years. In classroom method, teaching student's behaviors can be reshaped according to their requirements but now it's highly impossible due to lack of control through online classes. This online class hinder the holistic development of children. Education is not just a subject knowledge but also to develop life skills, social skills and sports skills, but in this online education might impact on children future personal and professional life. This research article focusing on understanding the perception of parents regarding their children's development through online classes. Because parents play very significant role in shaping the behavior of their children in this crucial time. The main objectives of this article is to understand the perception of parents regarding online learning of their children and focus to investigate the impact of online classes on society at large in future. The research article administered well-structured questionnaire through Google form to the parents which were randomly selected. The research adopting reliability analysis, correlation, regression and independent sample t test and ANOVA to identify the differences in perception.

Keywords: Online classes, Pandemic, Social behavior, Holistic society

OP-02: Analysis of Implementation of Innovative Teaching Learning Method in Conventional Teaching Method

A. A. Gudadhe¹, A. D. Deshmukh²;

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Abstract

Few years back the most inspirational and remarkable teacher was the one who use to capture attention of each students. Apart from the black board, there were use to be the only words of teacher with various examples which use to grasp the attention of the students and make the teaching innovative. But, now-a-days there are various innovative teaching learning method used by teachers to convey the ideas more effectively and create a lasting notion.

This paper represents the analysis of one of such innovative teaching learning method which was implemented to clear the concept and make the subject familiar. The outcome of the innovative method implemented, along with pre and post examination, shows the affirmative effect of the implementation of activity.

Keywords: Innovative teaching, Learning methods, Examination

OP-03: Predictive Analytics of Student's Performance In Higher Education Using Machine Learning

Rehaal Qureshi
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Abstract

Every year various educational institutes, schools and universities admit many students in different fields with various grades and performance capabilities. The aim of all such educational organizations is to improve the performance of their students so as to maximize the number of students successfully completing their course and attaining placement. This eventually improves the overall performance of the educational institute as a whole. Not only is it important for the institutes, but getting good grades and performing well in studies is equally important for the students. Success in academics highly boosts the confidence levels of students thereby helping them in building an overall healthy personality. This confidence and improved academic results can help them to land into the job of their choice. On the other hand, poor academic performance can lead to low self-esteem among students putting them in a state of doubting their mental / technical capabilities. If analyzed well then it can be noted that there are many obstacles in attaining this aim of educational institutes. Some obstacles arise from the subject's difficulty level, teaching methodologies adopted by the teachers etc. However, a great obstacle is posed by the various socio-economic, routine based and learning style based factors associated with the individual student. In order to keep a track of such factors that negatively impact a student's performance it has become the need of the hour to not only scrutinize deeply and identify the various factors that affect a student's performance but also leverage the power of the machine Learning domain to get useful insights from student's data.

The objective of this study is to identify various multi-disciplinary factors that affect a student's academic performance in colleges. After such factors are identified, they can be analyzed by using the various machine learning tools and techniques to extract the hidden patterns in student's data. By adopting the suitable Machine Learning approach, the study's objective is to help the educational institutes to gain useful insights from student's data which will help them in their decision-making process.

The techniques used in this study are various Machine Learning Algorithms related to Classification techniques such as Decision Tree, Naive Bayes, etc. to estimate student's academic result. Firstly, we identify the various set of socio-economic and academic factors that impact a student's academic performance. Next, the data related to these identified factors is collected from various students to form a dataset. Different Machine Learning techniques and algorithms are then applied onto this dataset to obtain a prediction model using which the academic performance of students can be predicted. Finally, Suitable methods are applied for testing the accuracy of the prediction model and the algorithm that is providing the maximum accuracy is chosen to be used.

The outcome of this study is to have an efficient Decision Support System particularly designed for educational institutes to have improved strategic planning for student's academic performance. Having an estimate of student's performance in academics beforehand will give the educational institutes the necessary time to employ effective strategies to focus on the development of students that are likely to have poor academic performance.

Machine Learning has tremendously brought about a paradigm shift in the way things were being done since ages in almost all the fields. It is a much-needed decision at the moment to leverage the remarkable capabilities of machine learning in expanding the dimensions of our educational sector for student's improved academic performance. By the application of proper

Machine Learning techniques, we can fetch out crucial patterns from the large amount of data generated and maintained by educational institutions. Such patterns can help the decision makers of the academic institutions to identify the problem areas and accordingly devise effective strategies policies for the development of students and eventually increase the number of students successfully passing their Undergraduate courses.

Keywords: Predictive analytics, Students performance, Examination

OP-04: Case Study on Innovative Technological Platforms Used in Teaching, Learning or Assessment at Wisdom Kids School: WhatsApp & YouTube based Online Teaching-Learning

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Abstract

Going into the COVID-19 world suddenly after about 10 days of celebrating our 2nd Annual Day on 8th March 2020 was a challenge for our humble school, where activity and physical presence of both learner and educator is literally an everyday affair. We have students from different economic backgrounds and family structures. Our main objective while deciding for the best suitable mode of Online studies for our children was: firstly one platform which can cater to our 40% economically weaker parents and secondly it would be feasible also for parents having more than one children. We had to plan for at least a year of Online studies beyond classroom with the limited available resources at our disposal without financially burdening our institution and Parents.

There are a host of different platforms available for teaching online to students like Zoom, Microsoft teams, Google meet and Classroom, etc. After deliberations and discussion amongst our management we decided WhatsApp Group along with YouTube links to be the most suitable platform for our Online Teaching to our 250-odd kids from Nursery to Grade 5. Every day from Monday to Friday would have only 2 subjects each with 1.5 hour duration per lecture. Saturday was reserved for evaluations. There were 2 basic parts in delivering the lecture viz: Pre-lecture preparation & Lecture Delivery.

A. Steps for Teachers in Pre-Lecture Preparation:

- 1. Prepare a PPT of every lecture dividing the content into Introduction, Main lesson, Evaluation or Textbook Exercise by subject Teachers.
- 2. Email the PPT to coordinator for corrections and standardized formatting.
- 3. Coordinator will upload the final PPT into a shared Google drive folder class-wise.
- 4. Teacher will download the PPT and with the help of screen recording software give the audio voiceover to the PPT. Each lecture of 1.5 hours will have 3 videos of around 8-12 minutes with questions and activities for kids within the videos.
- 5. Upload the videos prepared at 2 places: one in common Google drive folder for class-wise videos and second at schools YouTube channel assigning proper titles and playlists for future reference and thus generate a you-tube link for all videos of 1 lecture.
- 6. The YouTube link generated is to be forwarded to coordinator via email and preserved for second part Lecture delivery.

B. Lecture delivery via Parents-WhatsApp-groups:

- 1. Post a welcome message with subject, timings, books guide 30mins before the start of lecture in Admin-only Parents WhatsApp group.
- 2. Post the link of First video.
- 3. Give 20mins to 30mins of time for kids to respond privately and encourage participation by posting the names of students who have responded in the parents group.
- 4. Similarly links of second and third video of the lecture should be post in the parents WhatsApp group.

Parents can use audio, picture and videos to respond to questions in the videos depending on the content of subjects taught. Responses will be

given to the teacher posting videos personally on her WhatsApp. Teacher will respond personally to student and update in parent group too.

Outcome & Benefit of implementation:

- 1. One device sufficient for 2-3 kids.
- 2. No extra cost for parents as 1 device and mobile data is readily available.
- 3. Very Less screen-time as compared to other available platforms.
- 4. No extra cost for Institution Google drive, Gmail, YouTube, WhatsApp are all free.
- 5. Back-up of every lecture and PPTs available for future year's reference.
- 6. Suitable for working parents, they can send responses even after returning from work.
- 7. Students can refer videos all time for Exams and tests.
- 8. Teachers get additional resources for future lectures

Attendance of students and involvement of parents was encouraging for the complete year. Motivation of merit cards system for 100% attendance, timely tests, Examinations & competitions & activity days kept the WhatsApp group and students encouraged in the system of WhatsApp based Online classes. It obviously involved more than ordinary efforts by teaching staff and management but it was worth every minute, Alhamdulillah.

Keywords: Online classes, Innovative technical platform, School, WhatsApp

OP-5: Library Management in COVID-19 Pandemic: Case Study of AIKTC-KRRC

Shaheen Momin

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Abstract

A sudden shock, an unknown, unwanted and a strange situation is what can be used to describe the COVID-19 Pandemic disease presented unique challenges to all the stakeholders of education system. The sudden and unexpected outbreak of the virus also forced the library professionals, to ascertain ways of working in a rapid time frame like shifting to digital platform wherever possible and to provide adequate remote services to the users. The purpose of this paper is to find out how technology became a savior for the Central Library of AIKTC premier technological institutions during the COVID -19 pandemic. The study explores the type of services provided by the AIKTC Central Library. With the advent of Information and Communication Technologies (ICT), websites are functioning as gateways for libraries to reach its prospective users as, this is the ways in which the present information users interact and engage with.

SERVICES PROVIDED DURING 1st LOCKDOWN (March19-Dec.19): 1. Open Education Resources (OERs)

There are many scholarly freely available resources available notably National Digital Library of India (NDLI), Shodhganga - a repository of Electronic Thesis and Dissertation, Directory of Open Access Journals (DOAJ), Book Boon, Directory of Open Access Books (DOAB) and many more. The OER platform is created using Google Sites and Google Custom Search Engine. The Web portal is a collection of metadata links of Open Educational Resources useful for ENGINEERING, PHARMACY, ARCHITECTURE & HUMANITIES Education and Research in Digital Environment. The purpose to create the web portal is to make aware students, faculty members, research scholars, around the world about the

existence of open educational resources protected under creative common license, open access under copyright laws or under copyright free environment. Link: http://aiktclibrary.org/index.php/resources/oer.

2. Remote Access to Subscribed E-Resources:

Around the country all libraries of higher education system have been working hard to provide services and access to collections to the users who have been displaced due to COVID-19. AIKTC Library provides the remote access to Licenses e-Resources through the setup of Shibboleth Access through the INFED (Free Service). Link: https://idp.aiktclibrary.org/

3. Free and Expanded Access:

In response to the uncertain and difficult time, some publishers are providing expanded access to e-Resources (access to additional materials than subscribed by the library) including e-books, e-journals, e-databases etc. for a limited period during this pandemic. The list of such publishers along with details are given by the Library on Website and Facebook. This has enhanced the possibility of users availing the virtual services and hence, visiting library portal.

4. Online Plagiarism Detection Service:

Plagiarism is a growing menace in the academic world. In its attempt to curb the issue and promote the production of quality research papers and reports, the Library launched this Online Plagiarism Detection Service based on Turnitin, the world's most popular originality checking software. The service helps in determining the originality in research papers and reports prepared by the institute faculty and students by cross-checking the papers against the already published papers available online.

5. Other Services:

 No. of books for home lending increased as students need not visit library for that purpose only.

- Book an Appointment' system introduced in the month of March 2021 to avoid crowd.
- Markings put at min 1.5 meters distance at circulation counter, so that users, while in queue, can maintain distance.
- Easing of penalty rules and extended the due date for all types of reading materials issued to all categories of members.
- The books/ reading materials returned should be quarantined for a period of minimum three days.
- Part of class-wise WhatsApp groups, to share library updates about resources and services and discuss common queries/information.
- Organizing many virtual events in order to ease the stress level of users to get the required information in this difficult time. Eg. Literature Review, Plagiarism, Turnitin, OERs, Google Tips & Tricks, Mendeley, Zotero etc.

The saying 'change is the only constant' fits the situation. We never know whether we will have the pre-corona situation ever again or if we have to admit, adjust and embrace new norms and march forward. So, keeping ourselves prepared for the situation is a wise decision. The existing situation demands safety first. After all, library is the heart of any educational institution.

It needs to function strongly and efficiently to uphold the vision and mission of the parent organization. The utmost care in reopening the libraries is the need of the hour. All the precautionary measures taken should ensure the safety of every human being; as even a sluggish progress is acceptable, but it would not be possible without you, me and us all.

Keywords: Library, Pandemic, Communication Technologies

OP-06: Contemporary Teaching Learning Approaches for Engineering Education.

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Abstract

The presentation aims to give insight as to how educators can promote quality education by incorporating innovative teaching-learning practices for enriching learner experience. Some criteria/standards would be conveyed to help assess the quality of our teaching. In the context of engineering education, it is imperative that students acquire the graduate skills and attributes that make them employable. This is possible when learning is accomplished by explaining the context of the subjects, their significance and their execution in the real world. Content structuring is often a neglected part of course delivery. It cannot be emphasized enough that sequencing the topics as per learner ability is the most critical aspect of teaching. Improper structuring can result in degradation of attention span of students with gradual dislike in the subject. However, by adopting a suitable model for course structuring, the above can be avoided. Course planning document is another vital tool for gaining student's initial interest in the subject if it is devised properly and circulated well in advance. This document gives an idea of what the students will be learning and provides an excellent platform for piquing their curiosity. Key contents that should make it to the course planning document but are often missed out will be discussed.

A few strategies where the power of technology can be instrumental in bringing out the best and cancelling the traditional classroom boredom will be elaborated. The flipped classroom is a popular term with many educators trying to make it a part of innovative learning, but few know how to make this activity extremely effective. The best way of implementing the flipped classroom activity will be discussed keeping in mind the importance of

learner feedback to further fine tune the activity to what suits best. Lastly, it would be discussed how student's learning can be maximized by devising tests that are meant to make them think out of the box. Taking straightforward tests never made skilled engineers.

Educators should incorporate challenges which glue them to the course and give them a sense of satisfaction that they have learned industry relevant content. This keeps their motivation high as they progress through the course. Lastly, it's essential that the educators keep their motivation high as the journey to effectuate innovative teaching is overwhelming and requires extra efforts to be tolerant and patient towards the learners.

A good teacher has a good heart with best interest for the student community. He/she therefore never bogs down from the constant need to pioneer newer and better teaching pedagogies for the benefit of mankind. **Keywords:** Teaching and Learning, Course planning, Engineering Education

OP-07: A Case Study of Best Practices, Innovative Pedagogical Approaches Used to Teach Pharmacognosy Course.

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Abstract

Innovation is a broad term that means introduction of new things whether it is in the field of technology or education. New pedagogies and strategies that help in improving student engagement, motivation, and course attainment are a win-win for both students and teachers. Because in today's technology driven world, where everything is available easily at one fingertip and it's very easy for minds to lose focus from subjects and hence teachers need to be more than educator. Especially for teaching in universities, it is very essential that we look from student's point of view in terms of what are their expectations from subject. Students are usually interested in that whatever they are studying & how they will benefit from the learning in the future. So, introduction of innovative methods is essential to build interest in subject and to provide implementable knowledge to our students.

There are numerous methods to make your class more effective and interactive. It has been seen that more the innovative pedagogies are applied, better is the outcome. Not every subject can fit the same innovative technique or vice versa. Even different topics within same subject need different techniques. Moreover, students like variation in teaching practices to avoid boredom. I have adopted more than one innovative tools to make subjects interesting for my students. I used ABL (activity based learning), flip-flop learning, white board, audio-visual aid etc. for my subjects.

1. One of the method I experimented in pharmacognosy and phytochemistry-I is mini-project based learning the students were

divided in groups of 10. The activity of collecting different types of leaves depending on its classification was allotted to them. Each group had different topic like collecting leaves with different types of margin, different venation etc. The group collected different leaves from their own place and took a picture of leaves collected and made a power point presentation and presented it in front of their class on zoom platform.

- 2. Few other activities carried out are
 - i. Knowing interior by camera Lucida
 - ii. Exploring your kitchen
 - iii. Getting acquainted with your drug
 - iv. Discover Pharmacognosy at home.

Outcome or benefit of its implementation:

- 1. Students become life-long learner
- 2. Improved student's presentation skills and team work
- 3. Promoted eagerness to learn and participate even online.
- 4. Encouraged students to participate in their own learning.
- 5. Students are able to distinguish different types of leaves and apply practical knowledge of drug classification

Students have actively participated in the process of their own learning thereby understanding the concept themselves& implementing the same in a practical setup and as a result, achieving the course outcomes. The innovative technique used help to map many PO's which can't be mapped with regular syllabus pattern like life-long learning communication skill, use of modern tools and technique. Moreover, it gives self-satisfaction of imparting my knowledge to students in whatever best way possible even in presence of online obstructions.

Keywords: Teaching and Learning, pedagogies, Pharmacognosy

OP-08: An activity conducted to understand the rational and identify the error in the prescription as a part of activity based and participative learning pedagogy

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Abstract

Activity-based learning describes a range of pedagogical approaches to teaching. The idea of activity-based learning is rooted in the notion that students are active learners rather than passive recipients of the information. Prescription audit is a part of the medical audit which seeks to monitor, evaluate and if necessary, suggest modifications in the prescribing practices of medical practitioners. This activity was conducted to achieved following objectives:

- 1. To provide an optimum learning environment essential to make learning more joyful, long lasting and to encourage self learning especially during the lockdown period.
- 2. To map the activity with following course outcomes which can be map with POs (PO6- Professional Identity, PO9; Pharmacist and Society)
 - i. "**Apply** pharmacotherapy principles in microbial/parasite infections, endocrine and haematological disorders.
 - ii. Discuss pharmacology of drugs used in chemotherapy and justify the need for rational use of antimicrobials.
- 3. To provide a platform to improve students presentation skills.

The methodology adopted is as follows:

- 1. Activity is planned under the head of learning activities(continuous internal assessment).
- 2. All the students have been instructed to collect the prescription from relatives & friends preferable based on the disorders mentioned in the course.

- 3. Activity is explained to all students in details and the queries have been resolved.
- 4. An assignment is created on Google classroom and audit sheet is forwarded to all students comprising of two sections (Check list, Basic pharmacological information and rational use of medicine).
- 5. Students were instructed to submit the assignment which consists of prescription and filled audit sheet.
- 6. A presentation is arranged for all students to share their learning with other students.

Students have collected, audited the prescription which help them to apply their knowledge of therapeutics. While doing this activity students were able to

- 1. Distinguish brand name and generic names of the prescribed medicines.
- 2. Understand therapeutic uses, mechanism of action of prescribed medicines currently in use and therapeutic duplication (if any)
- 3. Critically scrutinize the prescription to identify prescription error such as drug-drug interaction (if any).
- 4. Participate in their own learning through this activity.

The students learned the therapeutic and rational use of prescribed medicine and also enjoyed the activity. Most of the students have applied the basic knowledge and identified prescription errors which might improve the safe and rational dispensing of medicines. The activity helped to map it with the course outcomes, POs (6 & 9) and improves the presentations skills.

Keywords: Teaching and Learning, pedagogies, Activity Based Learning, Participative Learning

OP-09: Effectiveness of Problem based learning pedagogy in teaching learning process.

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Problem based learning PBL is an instructional method in which students learn through facilitated problem solving. Students work in an collaborative way to problem solving ,hence in this process undergoes various skills of knowledge acquiring. In the present study , case study was assessed in the subject of Pharmaceutics. A problem based on formulation as assigned in groups. Students were asked to answer the problems in groupwork and submit solution on Google classroom. In this way students not only concentrate on finding the right answer but also focuses on complex ideas surrounding the solution.

Keyword: PBL ,Problem based learning, Pharmaceutics.

OP-10: Acceleration learning strategies for slow learners

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Abstract

An inspiring quote from Desiderius Erasmus says, "The main hope of a nation lies in the proper education of its youth". Thus, education, in terms of effective teaching, plays an important role for every student's development, but it imposes challenge, due to the diversity of learners. Amongst them identification of slow learners and steps to take initiatives for such students to explore their hidden talents is of utmost importance. Therefore, the objective was utilization of techniques that support the slow learners, for their enhanced progress.

The various approaches like Think Pair Share (TPS)/ Buddy teaching, Tutor guardian (TG), Project based learning (PBL), Home Fun (HF), Remedial sessions, Case studies, Audio and visual instructions etc. were adopted for the students. The outcomes of these approaches for slow learners were amazing in terms of their academic results as well as their placements. Hence, by use of such different approaches, improvements of their outcomes were observed and that ended in happy learning for them. In addition to these, other new techniques like development of worksheets, use of flashcards, mind maps, chunking strategy, Mnemonics, Analogies and Metaphors tool, Brain Breaks, Compensatory Teaching, Incorporation of customized learning materials etc. can be initiated to see wonders in outcomes of these students.

Thus, as Albert Einstein has rightly said "I never teach my pupils. I only attempt to provide the conditions in which they can learn". So, as teachers, we should not teach only the best ones in class, but create space for these slow learners and take care of these slow learners and prepare them for competitive world, by implementation of different strategies to be adopted for slow learners, that can definitely lend a hand for them to come out with flying colours and develop their self-esteem.

Keywords: Teaching and Learning, Pedagogies, Learning Strategies, Slow Learners

OP-11: The Design Pedagogy - Introspection and Reimagining Architectural Education

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Abstract

No other profession has undergone as dramatic a transformation in the past two decades as architecture. This paper aims to investigate and re-interpret how most Indian design schools offering undergraduate architecture programs have reacted to the stagnant state they are in right now. It seeks to evaluate and reimagine the alternative integrated and collaborative formulation narrative for teach-learn, assignment and evaluate their effectiveness for innovative integration of design and technology courses. The paper articulates a present-day perspective on the quality of architecture education (from design discipline position), based on mentors' and learners' experiences of teach-learn for Mumbai University (MU).

The 2020 pandemic is creating modifications in all parts of society. Harnessing this alteration should be the force for a long-overdue introspection and repair of the educational system and the way we teach architecture. The design teach-learn environment and pedagogy have remained idempotent throughout the past century. Today's education system focuses on output rather than exploring and perceptive processes in design. As a team member for the School of Architecture (SoA), it is important to introspect the MU curriculum and interpret the demand of said course.

In a design-orientated course such as architecture, we started looking for the new possible objectives for an otherwise ever-evolving MU curriculum. After in-depth investigation and assessment of previous design course formulation and pedagogy adopted, it was distinct to re-structured and inform the design curriculum of an undergraduate program at SoA. Pandemic status turns that opportunity for us to enquire a fresh route for design pedagogy. Methodology of best practice or innovative tools adopted is Integration and collaboration.

We found most students and faculties preceding pedagogy more enjoyable, thought provoking, and allowed learners to develop their own design processes with an evolving research attitude. It helps learners to maintain a balance of structured and unstructured learning during performance demand. Integration of most subjects cancelled the grading of repetitive or non-significant assignments and reduced the overall workload for learners as well as mentors. Thus, available time now, could be wisely invested into documentation of work, or pursuing individual interests.

We conclude we cannot approach design discipline as apart from theory or technology discipline. All subjects must integrate to any extent for inter-dependency tech-learn. This paper emphasizes the synergy of all subjects for knowledge sharing, assignment links, and integrated teaching aid learners to expression at architecture holistic rather than individualist for contemporary practice.

Institutes under MU curriculum cautiously chooses a design brief and site affecting investigations for either where the institute is located or where major learners come from or where environment endangered places/regions for long term research. Other open-ended courses like Electives and College projects must be functioning effectively as a supportive subject. Self-curation- is instrumental to both learners and mentors to dialogue with each other without any discrimination.

Keywords: Teaching and Learning, Pedagogies, Architecture, design teach-learn

OP-12: Pedagogical Approaches for Understanding and Responding to the Context

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Abstract

The context and Architecture go hand in hand when we look at the traditional/vernacular built form. Architectural language for a particular region is the result of conscious efforts taken by the users to answer their exact needs. As the development takes place, the gap between contextual language and the newly built form increases. This is also the reflection of a shallow understanding of the relationship between context and the built form. Academically making architectural students sensitize towards this issue can be one way to address this gap.

The study aims to address this gap through an academic discussion along with aspiring architects who have to struggle hard to understand the idea of responding to the context. The objective is to study three different approaches adopted in a bachelor of architecture design studio in three consecutive years. Exposing students to various tasks for sensitive understanding in architectural education is the methodology of best practice or innovative tools adopted. Since the study was more about qualitative aspects rather than quantitative aspects, the student's engagement in the course was observed and appreciated, which eventually resulted in enhancing the outcome and understanding. Deriving certain understandings that can be adopted in other design studios to strengthen the relationship between context and built form.

Keywords: Teaching and Learning, Pedagogies, Architectural Education

OP-13: Advance Digital Pedagogical Approaches in Education

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Abstract

We are all up against a dangerous wall today. The coronavirus [Covid-19] storm has changed everyone's life across the globe, so much so the 'world' that we all knew till the other day, will not be the same again. It will take a long time for the 'now normal' to return to its pristine level — that is the 'old normal.' In this COVID scenario conventional way of teaching has tremendously transformed on online teaching learning platform and that's the reason to improve our skill set to meet challenges of raised situation. Article orients on advance digital pedagogical approaches which are helpful for teachers to deliver educational content effectively to students.

As you know, in current scenario of COVID, online education is playing very crucial role in teaching learning process. In future, online education will be recognized as core to every school/college plan for institutional resilience and academic continuity. So, each teaching faculty needs to be massively re-trained and oriented for online teaching learning mode.

A key fact from article is as follows:

1. Familiarization of the teaching fraternity with digital teaching technologies; 2. Enumerate freely available software tools to create educational video, e-learning resources, digital student response systems; 3. Increase curiosity to choose learning management systems to engage students through interactive and collaborative learning; 4. Get acquaintance with online platforms for discussions, quizzes or conducting webinars with stakeholders.

In this article I tried to mention all possible free software digital tools available for teacher's professors, tutor in summarized format.

		MS	https://office.live.com/start/power
		PowerPoint	point.aspx
		Prezi	https://prezi.com/p/create-prezi/
	Software	Piktochart	https://piktochart.com/
	tools for	Canva	https://www.canva.com/
1	presentations	Google Slides	https://www.google.com/slides/ab
	procession.		<u>out/</u>
		Sway	https://sway.office.com/
		WPS office	https://www.wps.com/
		free	incepaily www.mparcomy
		Snipping tool (screenshot)	<pre>https://www.capture screenshot.org/snipping-tool/</pre>
		Awesome	
		Screenshot (Annotation)	https://www.awesomescreenshot.c om/
	Software	ClipArt ETC	https://etc.usf.edu/clipart/
2	tools for	(Infographics) HoltGraphic	The poly of decidation and an emparty
	images	Organisers	https://my.hrw.com/nsmedia/intg
		(Graphic downloads)	os/html/igo.htm
		Stencils	https://getstencil.com/
		(Images)	
		Wikimedia	https://commons.wikimedia.org/wi
		Commons	<u>ki/Main_Page</u>
	_	Unsplash	https://unsplash.com/
3	Free to use	Pixabay	https://pixabay.com/
	Images Site	Freeimages	https://www.freeimages.com/
		Creative	https://ccsearch.creativecommons.
		Commons	org/
		Search	
	Software	MS	https://office.live.com/start/power
4	tools for	Powerpoint	<u>point.aspx</u>
	creation of	Screencast-O-	https://screencast-o-matic.com/
	videos	matic	

		Renderforest	https://www.renderforest.com/
		Camstudio	https://camstudio.org/
		Blender	https://www.blender.org/
		Filmora	https://filmora.wondershare.com/
		Bandicam	https://www.bandicam.com/
	Software tools for	Powtoon	https://www.powtoon.com/
		Creatoon	https://www.filecroco.com/downlo
5	creation of		ad-creatoon/
	animated	Adobe Flash	https://www.adobe.com/in/produc
	videos		ts/flashplayer.html
		SmartBody	https://smartbody.ict.usc.edu/
		VSDC Video	http://www.videosoftdev.com/
		Editor	
	Software tools for video editing	Moviemaker	https://moviemakeronline.com/
6		Online	
		HitFilm	https://fxhome.com/hitfilm-
		Express	<u>express</u>
		Lightorks	https://www.lwks.com/
		Shotcut	https://shotcut.org/
		Audacity	https://www.audacityteam.org/
	Software	Anchor	https://anchor.fm/
7	tools for	Buzzsprout	https://www.buzzsprout.com/
	Podcasting	Podomatic	https://www.podomatic.com/
		PodBean	https://www.podbean.com/
	Software	Medium	https://medium.com/
8	tools for	Blogger	https://www.blogger.com/about/?
	Blogging		<u>bpli=1&pli=1</u>
	2.099119	Wix	https://www.wix.com/
	Software	Wordpress	https://wordpress.org/
9	tools for	Joomla	https://www.joomla.org/
	content	Tumblr	https://www.tumblr.com/

	management system	Drupal	https://www.drupal.org/
	Software for learning management system	MOODLE	https://moodle.org/
		Canvas	https://learn.canvas.net/login/can vas
10		Blackboard	https://www.blackboard.com/
		Brightspace	https://www.d2l.com/en-apac/
		Training	https://www.capterra.com/training
		online	<u>-software/</u>
	Software	Zetaboards	http://zetaboards.softwaresea.com L
11	tools for	BuddyPress	https://buddypress.org/
	Discussion	PHPBB	https://www.phpbb.com/
	forums	ProBoards	https://www.proboards.com/
		Bravenet	https://www.bravenet.com/
	Tools for interactive and collaborative work	Google drive	https://www.google.com/drive/
		Padlet	https://padlet.com/
12		Wikis	https://helpiewp.com/wiki- software/
		Pinterest	https://in.pinterest.com/
	WOLK	Scoop.it	https://www.scoop.it/
		Mentimeter	https://www.mentimeter.com/
		Socrative	https://socrative.com/
	Tools for	Kahoot	https://kahoot.com/
	online	Testmoz	https://testmoz.com/
13	quizzes, surveys and	Google forms	https://www.google.com/forms/ab out/
		Plickers	https://get.plickers.com/
	polls	Monkeysurvey	https://www.surveymonkey.com/
		Poll EveryWhere	https://www.polleverywhere.com/

14	Tools for creating badges and certificates	Badgr	https://info.badgr.com/
		Credly	https://info.credly.com/
		Accredible	https://www.accredible.com/
		Free	https://spark.adobe.com/make/cer
		Certificate	tificate-maker/

It is a challenge for the educational institutes and the teachers on how to reach out to students and ensure continuity of education in this COVID pandemic. I have given an attempt to orient on advance digital pedagogical approaches in education, one of the aspects in $21^{\rm st}$ century education revolution, on this note, I appeal teaching fraternity to explore all tools effectively not only in COVID pandemic but also in post COVID scenario.

Keywords: Online teaching, COVID pandemic, Software Tools

OP-14: Use of You Tube for Blended mode of Learning.

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Abstract

A change is inevitable. Any system which is the product of human mind will be subjected to change; Teaching-Learning system is no exception to it. Due to inception of internet and its revolutions over the time, the change in today's world is more than exponential. One who advocates classical way of teaching will find no place in the world of Incessant Revolutions. Algorithms, Artificial Intelligence and Machine Learning in some magnitudes have replaced the Universities of Concrete Jungle. Students are learning more through Algorithms then through any teacher in person. World's giant platform like MIT, Stanford and IITs through NPTEL have already resorted to Blended learning. Through Blended Learning, efficacy of the institute is increased in terms of enhancing Teaching-Learning process. YouTube is one of the platforms where teaching videos can be uploaded. It will not only benefit our students but also students around the globe. You tube algorithm is acting like a second teacher wherein most of the students' questions get answered through the process of algorithm in the form of Videos.

I have started my You tube channel in the late 2017, since then I have around 10,300 subscribers and more than 1.5 million views out of which 40% are foreigners. The purpose through which I started is to enhance the learning of one of the second shift civil engineering batch (2015-2019) who could hardly understand any structural subject.

This batch was the worst batch the civil department of AIKTC has gotten since its inception. There are many sub streams in the field of Civil engineering; structural streams being one of them and is one of the challenging fields in engineering. They were having some kind of Phobia with respect to Structural Subjects (SOM, SA-1 & SA-2). Chart 1 depicts

the result of 2015-2019 batch. They scored 28% in Strength of Material (SOM), 32% in Structural Analysis-I (SA-I) and 85% in Structural Analysis-II (SA-II). One who understand the nature of these subject may find that if a student is good in SOM; he may perform good in SA-I and subsequently perform good in SA-II Increase in SA-II Results is owing to the fact that I invited these students to attend my regular offline class and also see my recorded videos in You tube and they were asked to give test (instead of assignments) in batches every week after completion of offline lectures and online lectures.

Its nature of human being to forget anything at a moment; learning of subject is also no exception to it. Through Blended mode of learning students will be always in touch of content; thereby negating the chance of forgetfulness and increasing continuous learning. Learning is at their fingertips; anytime and every time students can access and learn the subject.

Keywords: Online teaching, YouTube, Blended mode of learning

OP-15: Case Study on Industry-based Skill Development of AIKTC learners through Coursera MOOCs.

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Abstract

Anjuman-I-Islam's Kalsekar Technical Campus (AIKTC) is affiliated to University of Mumbai (MU). Hence the curriculum offered at AIKTC has to strictly adhere to the syllabus given by MU; which is revised once in every 4 years. With the recent advancements in technologies, the industries are moving forward at a very rapid pace and so is its expectations of skills from fresh college graduates. This leaves various gaps in our current curriculum that must be filled in order to make our graduates industry ready.

A massive online open course (MOOC) is an online course that aims at massive participation and is available for open access via the internet. Introduced in 2008, MOOCs gained popularity in 2012 and got a boom in 2020 due to the boost in online education because of the pandemic. Coursera, edX, FutureLearn etc. are some of the leading MOOC platforms today. Coursera was founded by Andrew Ng and Daphne Koller, computer science professors at Stanford University in 2012 and currently has 77 million users worldwide. AIKTC is subscribed to the Campus Basic Plan of Coursera using which 229 learners have taken 1736 lessons so far.

In this case study, the bridging of curriculum gaps and development of industry-based skills of AIKTC learners through Coursera MOOCs have been evaluated.

The objectives of this case study are:

- To analyse the data of AIKTC learners using Coursera MOOCs in terms of enrolments and completion
- ii. To analyse AIKTC learners' feedback on Coursera MOOCs
- iii. To evaluate the industry-based skill development of AIKTC learners

through Coursera MOOCs

iv. To evaluate the role of Coursera MOOCs in addressing curriculum gaps.

The case study includes monitoring of performance of 227 students of AIKTC, enrolled in 106 unique courses on coursera.org. This monitoring includes courses enrolment rate, completion rate, learner's feedback and skill development and performance of students compared to industry index, during the one semester from March 2021 to July 2021. Coursera's analytics option has been used for monitoring this data. The emphasis has been made on tracking of skill development and students were classified as Conversant, Beginners, Intermediate and Advanced learners. After this classification, distribution of students has been found belonging to each classification. For e.g. in Computer Graphics skill, it has been found that 87 students took courses related to Computer Graphics and out of these 87 students, 2 students were classified as Advanced Learners, 29 as intermediate learners, 36 as Beginners and 18 as Conversant. This result has been drawn from student's assignment, date of completion, hours spent on learning etc.

Apart from this, learners' efforts and subsequent skill development has also been racked over the same period of time. Learners' effort includes data such as, completion of tasks/assignment on time, quality of task/assignment and number of hours spent in learning a skill. e.g. For Computer Graphic skill, it has been found that same 87 students had completed 524 task/assignment with an average of 6.02 task/students. During this analysis it has been found that maximum average hours spent on learning computer skills such as Cloud Computing and Computer Programming. After all of these analysis, skill development of these students was compared with global industry trends.

The case study reveals the interest of students in MOOC platforms such as Coursera.org. The average course completion rate for these students was 46.69 % which is surprisingly more than 10% for other MOOC platforms such as NPTEL and EdX. The excessive interest of students in MOOCs can be utilized in filling gaps in curriculum and Program Objective alike. Once the gap in curriculum has been identified, these courses can be used to fill the targeted gap.

For the period of 2019-20, there has been an increase of more than 5000% in students taking courses related to Business and Computer science. Comparing this trend with these 227 students, it can be concluded that there has been a good amount of awareness amongst students about computer science skills but they are seeming to be neglecting Business management skills. This lack of skill can be identified and filled using additional courses related to lagging skills in the students. Apart from this, MOOCs can also be used as flipped classroom and other innovative teaching-learning Process.

The case study indicates the clear improvement of students in skills such as Computer Graphics, Programming, Networking, Data Analysis and more. This increase in the skill can lead to better job prospects and market validation of students through globally verified certificates.

MOOCs are cost effective tools for that has gained more prominent role in industry-based skill development of college students. Course taught by a world-class professor give an edge when looking for a job and also help academic planners to track industry demands through data generated by platforms such as Coursera.org. MOOCs seems to have an important role to play in skill development of students by offering "off the shelf".

Keywords: Online teaching, MOOCs, Flipped classroom

OP-16: New approach to assessment: A Quizizz

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Abstract

The progress of ICT encourages the presence of various types of online test tools which can bring benefits in learning. One of them is Quizizz, a game-based online test that enables entertaining multiplayer teaching activity and allows learners to practice with their gadgets. A student's feedback is taken to examine the effect of Quizizz as a formative test tool in classrooms. The results showed that the application of Quizizz was effective to be used as a formative test tool in learning. In addition, students also showed a positive response to the use of Quizizz in the physical classroom. Thus, in the future, it is necessary that teachers consider the use of innovative, fun test tools so that students can engage more in the learning process.

Keywords: Online test, Quizizz, Innovative

OP-17: Critical Analysis of Student Results Using Tableau/ Semester Result Analysis

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Abstract

Data visualisation is, arguably, the most important stage of the data analytics process. A good visualisation will present your data in such a way that makes it far easier to uncover the patterns that lead to insights. It will also enable you to demonstrate to decision makers how you arrived at these insights and help persuade them to act. The amount of data collected today would have been unimaginable just a decade ago. There are 2.5 quintillion bytes of data created each day, and this is only increasing as connected devices bring more of our world online. For organisations both private and public, it is more important than ever to exploit the insights that this data holds. It helps them to understand the market for their product, potential risks that could occur, new efficiencies that could be created in their processes.

The article mainly deals with the Case study of Analysis of End Semester Results of Engineering Students. Traditionally the tool used for analysis was MS-Excel. In this article, the proposed technique helps to critically analyze the results using Tableau Software. The objective is to critically analyse student results for necessary corrective actions for which advance excel & Tableau were used. The analysis and visualisation's done will help one to find out Slow/Fast Learners effectively. Relationship between End Semester Exam and Term work is established. The overall distribution of marks is obtained using Box Plot. Percentage Pass and Failure of students is obtained using Pie chart. An Interactive dashboard is created to obtain real time insights and dig deeper in to the data. The proposed technique shall help to perform data analysis at various levels.

Keywords: Students result, Tableau, Result analysis

OP-18: Innovative way of Participative, Interactive and Experiential Group Learning: A Case Study

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Abstract

Making learners to take interest, interact and involve in group activities to have improved performance is the prime objective. Group Activities were adopted to improve performance of learners. If any activity is performed in a class as a group activity where each one knows their role and perform will lead to gradual improvement in the performance. As the task progressed the interest also will get improved and hence outcome. The only key to its success is the interest, interaction and involvement of the learner in the planned activities. The paper presents a Case Study on D-2019 students of BEME2 Class. Machine Design II is a course studied in final year of Mechanical Engineering. The course is advancement in the course Machine Design I studied in third year. It was observed in the previous batches that the time available for writing answers to the Term End Exam (TEE) paper questions is not sufficient, especially for the subjects like Machine Design I & II. Particularly in Machine Design II it is very difficult to write answers to all questions in 3 hours. As the time is insufficient in TEE paper, It was decided to take some necessary steps to have improved learning. A well thought step of participative, interactive & experiential Group learning asking for total involvement of all learners in the Group Activities were taken. Various group activities (Review Tests, One Page Report, Review report on Research Paper, University Paper Solving) were planned for Slow & fast Learners, to break the monotony of one way learning to participative, interactive & experiential Group Learning. This helped in achieving desired outcome as their performance got improved.

Keywords: Participative learning, Experiential learning, Slow and fast learner





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