

Vidya Pratishthan's KBIET, Baramati

Report on AICTE-ISTE approved One-Week Refresher Program-II on

Innovative Teaching-Learning Methods (22 to 28 April 2021)

No. of Sessions Conducted: 21 (Including Inaugural and Valedictory Function)

No. of Confirmed Participants: 100

No. of Participants who Completed Program Successfully: 94

Course Contents:

- ❖ Effective use of ICT-Teaching-Learning
- ❖ Designing Learner-Centric MOOCs
- ❖ Online Teaching-Learning
- ❖ Challenges in Digital Learning
- ❖ Project-Based Learning
- ❖ New Education Policy 2020
- ❖ Current Problems in Learning

Session wise detail reports are as follows:

Session—1

Date: - 22/04/2021

Time: 9:15-10:30 AM

The Inaugural Program

The Inaugural Program started at 9:15 am on 22 April 2021. It was chaired by Hon. Col. B Venkat (Director of FDP Cell, AICTE) and Hon. Dr. P K Desai (President of ISTE). Hon. Principal of the Institute Dr. R. S. Bichkar addressed the participants and also briefed about various activities conducted by the Institute. Dr. Anil P Hiwarekar, the Coordinator of the program presented the overview and the aim of the Refresher Program to the participants.

Session—2

Date: - 22/04/2021

Time: - 10:35-12:05 PM

Speaker: Dr. Kapil Kadam (IIT Bombay)



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Topic: Effective Use of ICT in Teaching-Learning Process

Highlighted Points / Argument:

Dr. Kapil Kadam started the session with discussion about the use of ICT tools for effective teaching and learning process. He emphasised the teacher's role in understanding and using ICT tools effectively in the teaching-learning process. Dr. Kadam explained the use of P-O-E strategies and its benefits in teaching-learning process. He also explained ICT tools like Mentimeter and Padlet in interactive and engaging way. He interacted with the audience through live poll and chat box tools.

Concluding Remarks: Finally, Dr. Kadam concluded the session emphasizing the use of ICT tools in teaching learning process. The session proved extremely useful for the participants.

Session—3

Date: 22/04/2021

Time: 12:10 --1:40 PM

Speaker: Mr. Rajendra Raut

Topic: Health and Happiness

Highlighted Points / Argument:

Mr. Raut highlighted that nowadays the most heard and welcomed topic is 'Health and Happiness' with special touch of Yoga and Pranayam. He began the session by stating a quote "Know your breath, know your life" followed by various other quotes. He mentioned that the most searched words in Google are meditation, anxiety, stress, depression etc. He elaborated on the four sources inner energy namely Breath, Health, food and Calm, Clear and Meditative mind. In order to be adaptive during these trying times of Pandemic situation of Covid-19, every one of us is challenged by mental health issues. In the view of this, mental health is becoming an alarming issue. Mr. Rajendra Raut prescribed the medicine of meditation to address the disturbed voice of humanity.

Concluding Remarks: While concluding the session, he shared basic yoga and pranayama practices. He also shared some health tips on acidity, cancer, anxiety etc. According to him, if one believes in keeping oneself mentally and physically fit, then she or he can achieve any milestone in the career.



Sessions—4 And 5

Date: 23 April 2021

Time: 9:00--12:05 PM

Speaker: Dr. Mukul Sutaone

Topic: Role of Curriculum Design in Quality Engineering Education

Highlighted Points / Argument

Dr. Mukul Sutaone highlighted that teaching and learning process cannot be effective unless teachers and students look at each other or face each other. Feedback on the face of the students is crucial for teachers to understand the content and delivery of his topic of discussion. He mentioned that education is a give and take process and while highlighting this point, he quoted Plutarch who say: "The Mind is not a Vessel to be Filled but a Fire to be Kindled" Dr. Sutaone mentioned that teachers should have a great zeal for life-long learning and they have a great role to ignite fire among students and become self-motivated. He highlighted that education helps a raw human being to transform into a cultured human being. It makes human beings accountable, responsible and good human beings and that is the most significant aspect in our present life. Dr. Sutaone also highlighted the social element about how education is differently available to classes and masses.

Concluding Remarks: While highlighting the Engineering education, he mentioned that curriculum plays a significant role and therefore, it should be prepared by highly intellectual people and a lot of care should be taken while forming the curriculum.

Session—6

Date: 23/04/2021

Time: 12:10 –1:40 P.M

Speaker: Dr. Nirmal Sahuji

Topic: Innovative Teaching Learning methods to make Online Lecture Effective

Highlighted Points / Argument

Dr. Sahuji discussed OBE philosophy, Bloom's Taxonomy for question analysis and how to make video lecture interactive. Throughout his lecture, he covered various aspects by using which we can make online lecture more interesting to students as well as to teacher through preparation.



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In OBE (Outcome Based Education) philosophy teacher by acting as facilitator, mentor and guide gives targets to the students by providing paths to achieve targets which are outcome, which should be measurable, achievable and specific of the activity. Teacher can help students throughout the process. For example, what is sorting? Explain any method of sorting. OBE is student-centric technique to implement accreditation in class room.

To meet the international challenge, the Indian higher educational institutions should attempt to differentiate themselves on the basis of the quality and which is where accreditation comes to play. He guided teachers for how to attain CO-PO mapping through online mode with high order thinking skills of Bloom's Taxonomy by providing case studies for which he gave guidance for how the mapping of CO-PO can be done.

Concluding Remarks: Lastly, he displayed that by stopping the video in between teacher can ask a question so that only by giving the answer of that question student can continue the video.

Session--7

Date: 24/04/2021

Time: 9.00 -- 10.30 AM

Speaker: Dr. Y. V. Joshi

Topic: General Methodologies to be Employed by Teachers

Highlighted Points / Argument

He highlighted that education helps a raw human being to transform into a cultured human being. It makes human beings accountable, responsible and good human beings and that is the most significant aspect in our present life. OBE process helps us to make students thinkers and not just knowledge seekers. Engineering education has programs like E and TC and Comp. Engg. and the aim and objectives of these programs have a target of making the students to be ready for jobs and industry.

He also highlighted the need of nurturing Universal Human Values among our students. He stated that teacher needs to inculcate Honesty amongst students. He also emphasized that it is need of hour that teacher should know the learner. He mentioned that there are three classes of students as "Inactive-Reactive-Proactive and also pointed that being good teachers, we need to convert inactive and reactive students into proactive students. He also pointed out that teacher need to convert teacher

into quick decision maker and risk taker. Finally, he concluded his classification with quote “Independence is Good but Interdependence is Excellent”.

Concluding Remarks: Finally, Dr. Joshi discussed various initiatives, schemes, induction program, summer internships and MOOCs like NPTEL and SWAYAM and Honour courses. He also discussed various educational models like AICTE Curriculum 2018 Model and importance of entrepreneurship in professional education.

Session--8

Date: 24/04/2021

Time: 10:35 -- 12:05 PM

Speaker: Dr. Sayalee Gankar (Vice-Chancellor of D.Y. Patil University, Pune)

Topic: Strategic Planning for Teaching Learning and Industry Collaboration

Highlighted Points:

Prof. Sayalee Gankar addressed participants on the topic ‘Strategic planning for teaching learning and industry collaboration’. She enlightened the participants by throwing a light on three strategic pillars: Excellence in learning, Excellence in teaching and Excellence in curriculum. While speaking about the first pillar, excellence in learning, the speaker focuses on topics: new education policy, multidisciplinary knowledge and skills, student-centered learning, experiential learning, and participative learning.

While speaking about the second pillar, excellence in teaching, speaker enlightened the fact that teaching should be valued, recognized, rewarded and celebrated. She also shared her own teaching methodology and experiences. While speaking about the third pillar, excellence in curriculum, she has thrown a light on teaching and learning strategic framework. She also emphasized the importance of industry collaboration with academia.

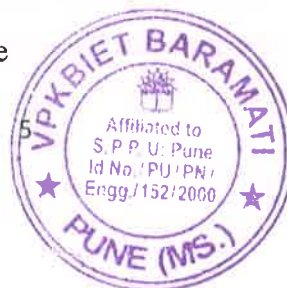
Concluding Remarks: She explained the concepts in lucid language and the participants enjoyed the session as it was interactive. The session on proved useful for all the participants.

Session—9

Date: 24/04/2021

Time: 12:10 -- 1:40 PM

Speaker: Dr. B B Ahuja, Director, COEP, Pune



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Topic: Connected Teachers

Highlighted Points:

Dr. Ahuja firmly mentioned that 'The one, who remains Connected and Committed, can become more innovative'. He believed, the most challenging part of education is communication and the one who communicates more, understands better. He addressed about how the changes in the university education have taken place in due course of time from ancient Indian universities like Takshshila and Nalanda to the leading universities of the modern world like Oxford, MIT, Stanford, etc. According to him, 'Teaching' is the noblest profession and there is no better way of serving our nation than teaching our students. Dr. Ahuja focused on the developments that have taken place in the Engineering education. He rightly said that in olden days engineering education was confined to civil and mechanical engineering with applications in Military and Steam Engines. Further, he also quoted some of the greatest achievements of 20th century like Telephone, Electronics, spacecraft, airplane, etc., and continued to the innovative achievements of 21st century like LCD, LED, Laptop, smart phone, I-pad, e-books, WhatsApp, 3D printing, IOT, AI, etc. He convincingly said 'the greatest gift that the technology has given to the community in recent days is online education and use of open source courseware through internet.

Concluding Remarks: Dr. Ahuja concluded by saying that technology is changing and evolving things. He said it is the survival of the fittest today as technologies are born on the CLOUD, but are burning on the ground (earth). Lastly, the speaker ended the session with a question "What are we going to Change in the life of students and the world at a broader scale"?

Sessions—10 and 11

Date: 26/04/2021

Time: 9.00—12:05

Speaker: Dr. Vikas Shinde

Topic: Project Based Teaching Learning

Highlighted Points:

He started with discussion what is the idea of the Project Based learning. It is student-centered and starts with authentic problem where tutor acts as facilitator or guide. The initial stage in PBL is identification of the problem. Then we can use this problem as a tool to help students to gather required knowledge to solve the problem. Traditional education system is of the type of only



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listening and sometimes observing which lowered the cognitive nature of the students. He emphasised on giving a real life problem which should be challenging, complex, difficult and engaging. The educational model problem is at the central level. We can develop learning goals and depending on the situation, instructions can be prepared and then start with assessment. To support this infrastructure can be augmented. He discussed the Aalborg learning environment in which the syllabus has 5 credits for the theory and 15 credits for the project work unlike our system of education. He explained the CL- PBL model, Vishwaniketan PBL Model and Aalborg PBL model thoroughly.

Concluding Remarks: He concluded by saying that the content approach should be of exemplary practice with concern of disciplinary and interdisciplinary learning. PBL learning spaces have classroom, laboratory work, team, teacher, additional courses and expert talks.

Session—12

Date: 26/04/2021

Time: 12:10—1:40

Speaker: Dr. N. V. Kalyankar

Topic: New Education Policy--2020

Highlighted Points:

Dr. Kalyankar briefed about the newly framed education policy in India. He highlighted the importance and flexibility of new education policy. He gave stress on the ambitious visions and goals of the new national higher education policy. He also focused on the multidisciplinary approach for UG programs with a greater number of choices. He also emphasized on setting up of multidisciplinary Universities and colleges in every district. Dr. Kalyankar added that there must be one regulatory body controlling all the graded institutions with uniformity in fee structure and having multidisciplinary programs. He also told that the new education policy also focuses on developing institutions for Pali, Persian and Prakrit languages.

Dr. Kalyankar conveyed the impacts of technology in the overall improvement of the outcomes of the education process. He suggested that technology must be used in administration as well as in the management. He indicated that if e-contents are made available in the regional languages then it will help the learners. He focused on the importance of technology in the development of software for the differently abled (Divyang) learners. The speaker also highlighted about the use of technology for the free exchange of ideas globally.



Concluding Remarks: Finally, Dr. Kalyankar concluded his session by intimating about the setting up of an autonomous body in the new education policy called “National Educational Technology Forum (NETF)” and also highlighted its functions. Lastly, he mentioned that the biggest challenge is to implement this new national education policy 2020 and the achievement of the overall target in the synchronized and systematic manner without any hassle.

Session—13

Date: 27/04/2021

Time: 9.00—10:30

Speaker: Prof. Basvaraj Hooli

Topic: Learning Experience Design

Highlighted Points:

When we know the problem then only we can solve it but we must check whether the problem is right or not, if not we need to frame the problem. LXD is the science and the art of creating experience that help the learner fulfill the learning outcome they desired, in a user centered and goal directed way. A way of integrating design thinking technique is with instruction design. He explained the experience economy by example of coffee. Future is a kind of digitalization will be shaped by the current crisis lead to new normal which is different than normal in a past. We are shifting from humanism to dataism by more believing in a data than our own guts. The learning transfer mental model has acquired the knowledge of single concept then connect concept in a relationships and transfer to new situations. He explained how corona virus is accelerating the digitalization. He talked about digital transformation in which you need to develop the new approach in any aspect.

Concluding Remarks: Finally, he concluded with the positive approach towards the evolvment in the education system and mentioned that all the stakeholders need to put in efforts to make it more effective and meaningful.

Session—14

Date: 27/04/2021

Time: 10:35—12:05

Speaker: Dr. B M Naik

Topic: Insights in to Research, Innovation and Entrepreneurship



Highlighted Points:

Dr. B M Naik elaborated the newly framed education policy in India. Education now must be aligned to the world dynamics, opportunities and challenges. Method of education must be changed from memorization to experimentation. Innovation is the foundation of start-ups and start-ups are necessary to bring new ideas to the market and make Atmanirbhar Bharat. The root cause of all problems in education is insufficient innovation and insufficient entrepreneurship. Lack of innovation is the major barrier in job generation and employment. Innovation is a strong stimulant; innovative persons work with passion and endless energy. Most of innovations have come in India from abroad. Innovative people are never unemployed. They innovate and again innovate to create something new. They create wealth. Learning must be innovation oriented, creativity and entrepreneurship oriented, to make Indian economy strong. NEP Poses many challenges to universities and colleges. The first and foremost is to make education relevant, spin-off hi-tech start-ups. Imparting skills of research, skills of innovation and skills for entrepreneurship is prescribed by NEP. Imparting only known knowledge and known technology does not suffice. Synergy between industry and institute for mutual growth must be generated. Ideas from Alumni for innovation in colleges must be invited.

Concluding Remarks: Finally, Dr. B M Naik concluded his session by his experiences with the foreign educational institutions. Respected Principal Dr. R. S. Bichkar also attended the entire session and expressed his gladness to relate to his mentor.

Session—15

Date: 27/04/2021

Time: 12:10—1:40

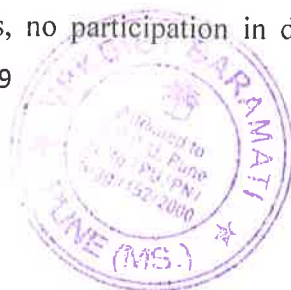
Speaker: Dr. Kapil Kadam

Topic: Designing Learner-Centric MOOCs

Highlighted Points:

In the start of the session, Dr. Kapil Kadam highlighted difference between 20th century and 21st century education. He discussed how information was premium in 20th century and how it is now available on fingertips of students in 21st century. Dr. Kadam then discussed about the need of MOOCs. He also focused on challenges that are faced by traditional MOOCs modules which includes low completion rates, Passive learners, no participation in discussion forums etc. Dr.

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Kadam explained importance of learner centred MOOCs courses in the current scenario. He also focused on the importance reflection spots in between the learning process. Along with this he also emphasized that LeD (learning Dialogues) promote concept acquisitions through learning interactions.

Concluding Remarks: Dr. Kadam concluded the session explaining about recommended formats for MOOCs videos like Slidecast, Talking head, Screencast, Picture-in-picture, Table-Top and transition between these formats etc.

Sessions-16, 17, 18 and 19

Date: 28/04/2021

Time: 9:00-- 1.40 PM

Highlighted Points

Speaker: Dr. Anil Hiwarekar

Highlighted Points:

Dr. Anil Hiwarekar conducted a session on innovative methods in teaching and learning and shared the methods he used during his teaching practices. He pointed that out students should be encouraged to learn through various platforms and shared his innovative methods of teaching Mathematics to Engineering graduates. He also mentioned that using innovative methods in teaching-learning process are highly required guided the participants about various methods. Different methods for enhancing Learning: Dr. Hiwarekar initially discussed problems facing by students during learning. Many students are from rural area and having lack of self-awareness. Some students are slow learners. He discussed innovative ideas implemented by him to enhance learning and increase interest among students. He also explained effective use of appreciation and punishment in teaching learning methods.

Experimentation of video lectures: He discussed how video lectures are helpful for students in learning. He demonstrates statistical analysis of effect of video lectures in students' performance. He mentioned that short video lectures are more effective. He emphasized that video lectures are useful for both types of earners slow learners and active learners. Also he mentioned advantage of video lectures like students can watch many no. of time this video at any time from any place. It saves students time.



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Concluding Remarks: In conclusion, he suggested important factors like update with technology, use experimentation, increase research component and also maintain good health and happiness in improving teaching and learning.

Speaker: Mr. Dinesh Zende

Transforming Teaching and Learning Process through AI

Highlighted Points:

Mr. Dinesh Zende initially briefed about what is artificial intelligence and Machine learning. He explained how AI is useful to automation of repetitive task, it add intelligence in existence product. AI is useful in progressive learning and it gives greater accuracy and gives more rigorous analysis. He also discussed applications of AI in different areas like Banking, transportation, healthcare, space agriculture and many more fields.

He discussed different transformations in teaching and learning process through AI. AI enabled Learning management systems (LMS). He explained how AI brings transformations in learning, testing, content creations; project based learning and virtual reality experience. He demonstrated many videos showing transformations of AI.

Concluding Remarks: In concluding remarks, he mentioned that there is a change in education system with help of AI and it is helpful to students, teachers and organizations.

Speaker: Mr. Prafulla Pise

Topic: Proctored Examination: Does it really work?

Highlighted Points:

Mr. Pise explained need of online proctored exam in this pandemic situation. Initially he discussed about what is cheating? Why do students cheat and how they cheat in exam in details. He mentioned that cheating is not fault it is nature. He briefed about reasons for academic dishonesty. He also discussed what changes occur in cheating in old days and now days. He emphasized that proctored testing/examinations helps to decrease cheating. He shared some important tips while conducting examinations like decide exam types and inform students well in advanced. Also he discussed many key points to achieve success in conduction of online examinations.



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Concluding Remarks: He mentioned the use of remote proctoring tools for student's authentication, audio video streaming and recording, browsing limitations and webcam monitoring in conducting online examination.

Session--20

Valedictory Function:

The Refresher Program concluded with the remarks and appreciation by Hon. Prof. V D Vaidya (Executive Secretary, ISTE, New Delhi), Hon. Principal, Dr. R. S. Bichkar, participants and colleagues. They also addressed the participants and congratulated the coordinator of the program, the organising team and the participants. Dr. A. P. Hiwarekar (Coordinator of Refresher Program) provided the overview of the program.

Online Test of Participants

During this session, the test of all participants was conducted. The test was formed as per the rules and instructions by ISTE and AICTE. Test marks and results were declared to the participants. We sincerely thank the ISTE, AICTE for considering our Institute to conduct this Refresher Program, guiding us during the program and your consistent support and cooperation for the program.



Dr. A. P. Hiwarekar

Coordinator

VPKBIET, Baramati



Dr. R. S. Bichkar

Principal

VPKBIET, Baramati