

### **2.3.2. Teachers use ICT enabled tools for effective teaching-learning process.**

At ICEM, educators leverage technology to create a dynamic and engaging learning environment that enhances both teaching and learning processes. Here's a closer look at the various tech-driven tools and approaches used:

#### **ICT Integration for Enhanced Learning:**

Information and Communication Technology (ICT) empowers teachers to deliver content effectively and interactively. By using multimedia tools like PowerPoint presentations, videos, and online resources, educators present ideas in ways that appeal to different learning styles and improve student understanding.

#### **Wi-Fi Enabled Campus:**

The campus-wide Wi-Fi ensures seamless internet connectivity for both teachers and students. This connectivity allows access to the latest information, helping students stay up-to-date with current knowledge and industry trends.

#### **Modern Learning Resources:**

The college's Automated Library and Lecture Recording Room enhance the learning experience, providing resources for self-study and reviewing lectures. The library's automation ensures students can easily access digital resources, while recorded lectures enable them to revisit key concepts anytime.

#### **Equipped Computer Labs:**

Computer labs with updated software, such as C, C++, Python, R, Java, and Microsoft Office, meet curriculum needs and give students hands-on experience with industry-relevant tools.

#### **Online Learning Platforms and Interactive Tools:**

Teachers have adapted to using online platforms like Google Meet, Zoom, and Microsoft Teams, enabling flexibility for remote and hybrid learning. Faculty Development Programs (FDPs) train educators to effectively use these platforms, ensuring smooth online sessions.

#### **Digital Content and e-Resources:**


Teachers enhance lecture quality by integrating e-books, educational videos, TED Talks, and YouTube, Edpuzzel, Muddy Points, Menti-meter content into lessons. This multimedia approach fosters critical thinking and allows students to learn from global knowledge sources.

#### **Resource Sharing Through Various Platforms:**

Reading materials, short notes, and e-books are shared via Google Classroom, Microsoft Teams, email, the college portal, WhatsApp, OneDrive, Microsoft Notebook and other platforms, giving students easy access to study materials. This multi-platform sharing caters to different preferences, ensuring students have ample resources for their studies.

Through these initiatives, ICEM teachers ensure that technology is optimally used to foster a supportive, resource-rich learning environment that prepares students for the digital age.



  
Principal  
Indira College of Engineering  
& Management, Parandwadi, Pune



Ref: ICEM/MCA/2022/

Date: 15/07/2023

## Department of MCA

### Report on ICT Tools used in Academic Year 2022-2023

PowerPoint (PPT) Presentations: PowerPoint presentations continued to be a prevalent tool for both faculty and students in the MCA department. The following aspects were observed:

- a. Lecture Delivery: Faculty members extensively employed PPTs to deliver lectures, making use of multimedia elements to enhance engagement and understanding.
- b. Student Projects and Seminars: MCA students utilized PPTs to present their projects and seminar topics, showcasing their research, analysis, and problem-solving skills effectively.
- c. Visual Aids: PPTs acted as valuable visual aids, assisting both students and faculty in comprehending complex concepts and processes.

• Google Classroom: Google Classroom emerged as a powerful virtual learning environment, fostering seamless communication and collaboration between instructors and students. The adoption of Google Classroom witnessed the following highlights:

- a. Assignment Management: Faculty members used Google Classroom to distribute assignments, receive submissions, and provide feedback efficiently.
- b. Announcement and Discussion: Important announcements and class-related discussions were carried out through the platform, ensuring timely communication.
- c. Resource Sharing: Course materials, including lecture slides, reference materials, and supplementary resources, were shared on Google Classroom for easy access.
- d. Grading and Evaluation: Google Classroom's integration with Google Suite simplified the grading process, streamlining assessment and evaluation.

Overall Impact: The integration of PPTs and Google Classroom had several positive impacts on the academic year:

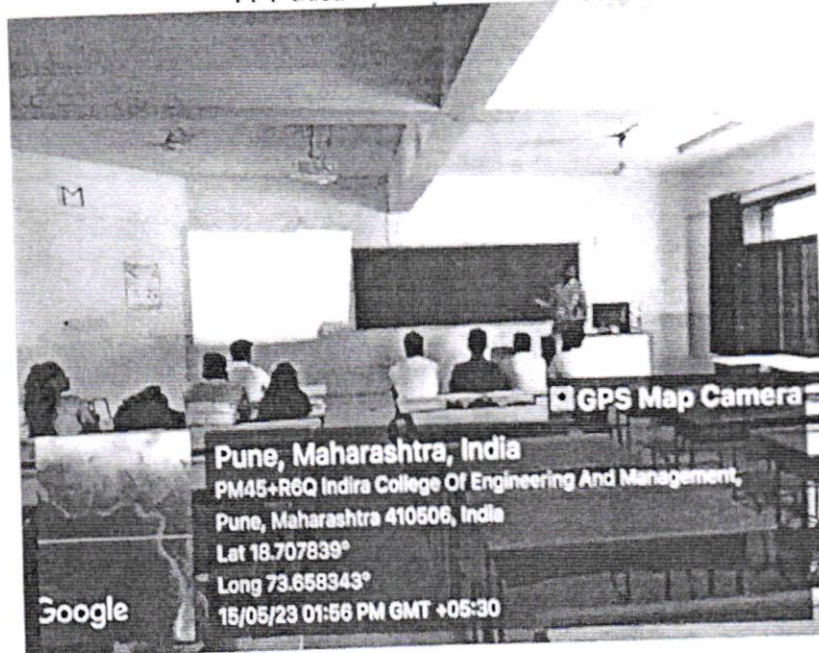
The academic year 2022-23 witnessed the impactful use of ICT tools like PowerPoint presentations and Google Classroom in the MCA department. These tools facilitated effective teaching, learning, and collaboration, while also presenting opportunities for improvement and future development. The department remains committed to leveraging technology to enrich the educational experience and prepare students for the digital age.







PPT Used By Subject Teachers



Mr. Bhushan Nikam  
Academic Coordinator



Dr. Darshana Desai  
HOD (MCA)



  
**Principal**  
Indira College of Engineering  
& Management, Parandwadi, Pune



Ref: ICEM/MCA/2023-2024/ 122

Date: 17/04/2024

## Department of MCA

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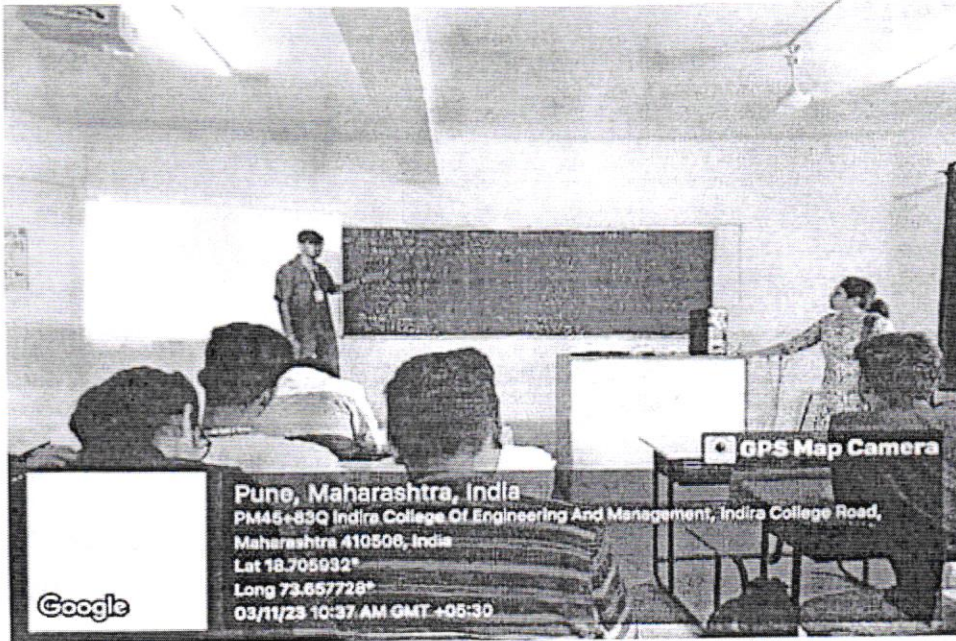
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PPT, Board Used By Subject Teachers



Mr. Milind Deshpande  
Academic Coordinator



Dr. Darshana Desai  
HOD (MCA)



Principal  
Indira College of Engineering  
& Management, Parandwadi, Pune



## Department of Computer Engineering

### Report on ICT tools usage

Date: 18/4/2024 (A.Y. 2023-24)

"We need technology in every classroom and in every student and teacher's hand, because it is the pen and paper of our time, and it is the lens through which we experience much of our world." - David Warlick

ICT is widely used in our everyday life, and its need is ever-growing in the education sector. Images, audios, videos, presentations, or a combination of these used for teaching constitute ICT in education.

We, at Computer Engineering Department, utilize different ICT tools in teaching learning process. We conduct Theoretical lectures and demonstration of Practical assignments on Projectors by using PowerPoint presentation.

Departmental Files are digitized on One Drive. Student's academic feedback is taken using Google forms. Individual faculties make use of One drive for storing their Course materials which are shared with students.

Important notifications are being shared on official email and whatsapp group for the faster communication to both students and parents.

Prof. Dipali Junankar  
Prof. Rupali Adhau  
Academic Coordinators

Dr. Vikas Nandgaonkar  
I/C HOD



Forms | Course Exit Survey (Artificial Intelligence) | Saved

Questions | Responses 30 | Preview | Style | Collect responses | Present

## Course Exit Survey (Artificial Intelligence)

1. Roll Number \*

Enter your answer

2. Name of Student \*

Enter your answer

3. Does this course help you to understand the concept of Artificial Intelligence (CO1) \*

Excellent (5)  
 Very Good (4)  
 Good (3)

Windows taskbar: Type here to search, 32°C, Hazrat, ENG 1:44 AM IN 4/18/2024

INDIRA OneDrive

My files > ICEM\_Computer\_Dept

Name	Modified	Modified By	File size	Sharing	Activity
Academic Year 23-24	July 13, 2023	Dr. Vikas Narayanaiah	14 items	Shared	Viewed by Nishu Malik on 4/18/2024
Academics	June 29, 2023	HOD COAP	11 items	Shared	
Alumni IMA Portal	August 21, 2023	Shreekrishna Taware	1 item	Shared	
Autonomy	June 29, 2023	HOD COAP	2 items	Shared	
CO_Extra_Curricular_Activities	June 29, 2023	HOD COAP	3 items	Shared	
Department File 22-23	June 29, 2023	HOD COAP	2 items	Shared	
Exam	June 29, 2023	HOD COAP	7 items	Shared	
Internship	June 23, 2023	HOD COAP	2 items	Shared	
ICT SUBSCRIPTION	January 7	Shreekrishna Taware	1 item	Shared	
Memo	June 29, 2023	HOD COAP	0 items	Shared	

Windows taskbar: Type here to search, 32°C, Hazrat, ENG 1:47 AM IN 4/18/2024











## Department of Basic Engineering

### Report on ICT tools usage

Date:12/02/2024

Details:

“Teaching in the Internet age means we must teach tomorrow’s skills today”.

ICT (Information and Communication Technology) refers to efficient management of information with the use of hardware and software.

Can be used to transmit, store, create, share or exchange particular task. It plays a very important role in the way we communicate, learn and live.

We at Basic Engineering Department use MS teams for conducting lectures, giving assignments, evaluation, conducting quiz, attendance, share the study material and create teams for different divisions.

Use one drive for multiple accessing of the data shared on cloud and perform the collaborative tasks, storing the recordings of the lectures.

Whiteboard is used as a digital canvas for sharing the content.

We also have created YouTube channel in which we have shared the practical recordings, numerical solving methods, explanation for difficult topics, so that the students can view the videos as per their convenience.

Many of us use power point presentations for delivering the lectures, share the links for NPTEL videos, links for e-books, MCQs solving methods.

At the beginning we also use Zoom for conduction of bridge course, as the students mail ID of Microsoft Outlook are being created after the confirmation of admission. Once the students get the mail ID we gradually shift to MS teams and train the students and make them familiar with all the tools available in MS teams.

Parent Teachers Meet are also conducted on Zoom, as the parents do not have the MS mail ID.

Google classroom is also used for sharing the content, google forms for conducting exams and evaluating and posting the results, attendance marking, and getting feedbacks from students.





Cameras have been installed in each classroom for virtual view of black board teaching.

Important notifications are being shared on Telegram Channel for the faster communication both to students and parents.

Links:

Coursera Links:

Sr. No.	Name of course	Course link
1	AutoCAD for Design and Drafting Exam	<a href="https://www.coursera.org/learn/autodesk-autocad-design-drafting">https://www.coursera.org/learn/autodesk-autocad-design-drafting</a>
2	3D CAD Fundamental	<a href="https://www.coursera.org/learn/3d-cad-fundamental">https://www.coursera.org/learn/3d-cad-fundamental</a>
3	Autodesk CAD/CAM/CAE	<a href="https://www.coursera.org/specializations/autodesk-cad-cam-cae-mechanical-engineering">https://www.coursera.org/specializations/autodesk-cad-cam-cae-mechanical-engineering</a>
4	CAD and Digital Manufacturing	<a href="https://www.coursera.org/specializations/cad-design-digital-manufacturing">https://www.coursera.org/specializations/cad-design-digital-manufacturing</a>

Journal Articles:

Sr. No.	Technical article Link
1	<a href="http://www.cimt.org.uk/journal/sinanolkun.pdf">http://www.cimt.org.uk/journal/sinanolkun.pdf</a>
2	<a href="https://www.sciencedirect.com/science/article/abs/pii/S0734189X90901118">https://www.sciencedirect.com/science/article/abs/pii/S0734189X90901118</a>
3.	<a href="https://www.jstor.org/stable/pdf/jeductechsoci.9.3.149.pdf?seq=1">https://www.jstor.org/stable/pdf/jeductechsoci.9.3.149.pdf?seq=1</a>
4.	<a href="https://www.jstor.org/stable/3106007?seq=1">https://www.jstor.org/stable/3106007?seq=1</a>
5.	<a href="https://www.tandfonline.com/doi/abs/10.1080/22054952.2010.11464037">https://www.tandfonline.com/doi/abs/10.1080/22054952.2010.11464037</a>

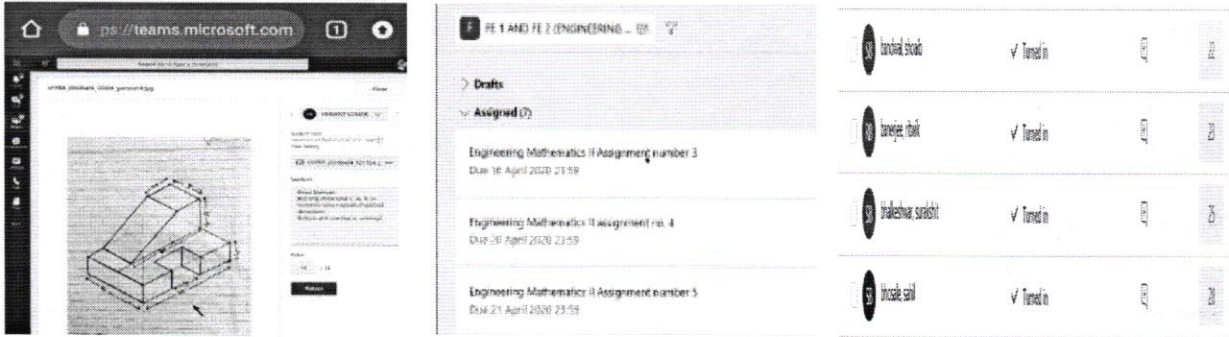
e-Book Links:

Sr. No.	Name	e-Book Link
1	A Textbook of Engineering Physics By M N Avadhanulu	<a href="https://books.google.co.in/books?id=ITUNWORcDgC&amp;lpg=PP1&amp;pg=PA50#v=onepage&amp;q&amp;f=false">https://books.google.co.in/books?id=ITUNWORcDgC&amp;lpg=PP1&amp;pg=PA50#v=onepage&amp;q&amp;f=false</a>
2	Engineering Physics	<a href="https://www.researchgate.net/publication/324190021_A_TEXTBOOK_OF_ENGINEERING_PHYSICS/link/5d3915a4a6fdcc370a5d7dc3/download">https://www.researchgate.net/publication/324190021_A_TEXTBOOK_OF_ENGINEERING_PHYSICS/link/5d3915a4a6fdcc370a5d7dc3/download</a>

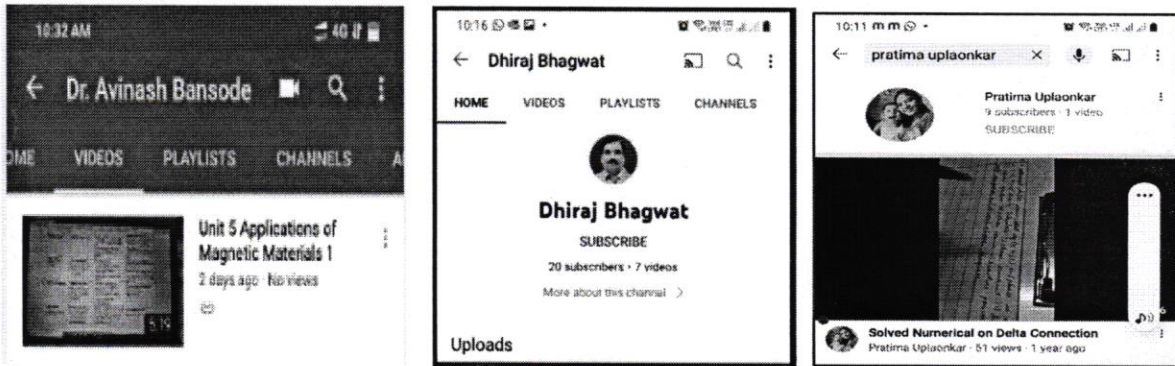




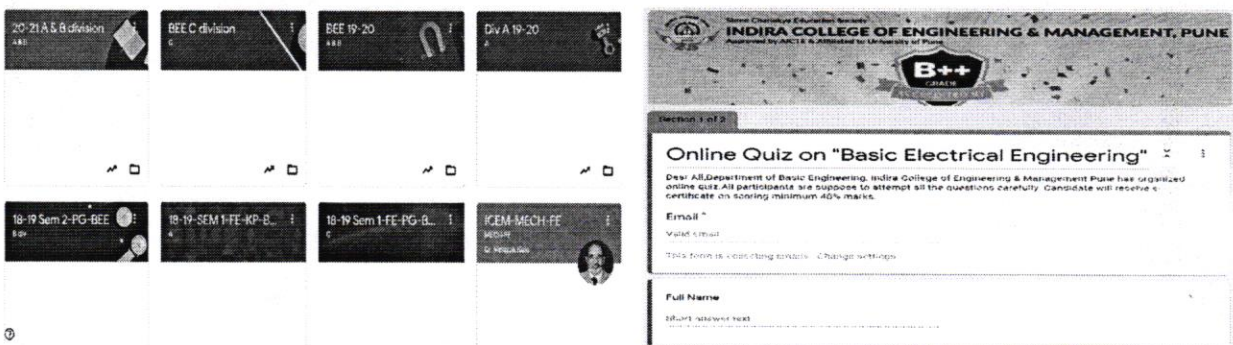
### Photographs for Assignment Evaluation on MS Teams



### YouTube Channel Created by FE Faculties:



### Google Classroom and Google sheets:



*Pratima Gaikwad*  
**Academic Coordinator**  
Mrs. Pratima Gaikwad



*Kiran Devade*  
**HOD**  
Dr. Kiran Devade

**Department of Basic Engineering**  
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*Principal*  
**Principal**


Indira College of Engineering & Management  
Parandwadi Pune-410506



## Mechanical Engineering Department ICT tool Usage (AY 23-24)

Department	Sem	Class(Pattern)	Name of Subject	ICT tool Used	ICT Resource Link	ICT Resource Link
Mechanical	I	SE(2019)	Engineering Materials and Metallurgy	Video & PPT	<a href="https://classroom.google.com/c/NTIzMjI0NzE0NTUw/p/NjM1OTc1Mjc1MTA5/details">https://classroom.google.com/c/NTIzMjI0NzE0NTUw/p/NjM1OTc1Mjc1MTA5/details</a>	<a href="https://classroom.google.com/c/NTIzMjI0NzE0NTUw/p/NTIzMjI0NzIzMDAz/details">https://classroom.google.com/c/NTIzMjI0NzE0NTUw/p/NTIzMjI0NzIzMDAz/details</a>
Mechanical	I	SE(2019)	Electrical and Electronics Engineering	PPT & Video	<a href="https://indiraicemac-my.sharepoint.com/:f:/g/personal/rupali_salunke_indiraicem_ac_in/Ej25ssKGCzIEvgzEOGZRzFEB2-">https://indiraicemac-my.sharepoint.com/:f:/g/personal/rupali_salunke_indiraicem_ac_in/Ej25ssKGCzIEvgzEOGZRzFEB2-</a>	<a href="https://indiraicemac-my.sharepoint.com/:f:/g/personal/rupali_salunke_indiraicem_ac_in/Ej25ssKGCzIEvgzEOGZRzFEB2-">https://indiraicemac-my.sharepoint.com/:f:/g/personal/rupali_salunke_indiraicem_ac_in/Ej25ssKGCzIEvgzEOGZRzFEB2-</a>
Mechanical	I	SE(2019)	Solid Modelling and Drafting	PPT & NPTEL Video	<a href="https://archive.nptel.ac.in/courses/112/102/12102101/">https://archive.nptel.ac.in/courses/112/102/12102101/</a>	<a href="https://www.a4u.co.in/siddheshwarshirbhate#Solid%20Modeling%20and%20Drafting">https://www.a4u.co.in/siddheshwarshirbhate#Solid%20Modeling%20and%20Drafting</a>
Mechanical	I	SE(2019)	Engineering Thermodynamics	Chalk Board & PPT	<a href="https://archive.nptel.ac.in/courses/112/106/112106310/">https://archive.nptel.ac.in/courses/112/106/112106310/</a>	<a href="https://www.a4u.co.in/ashwini_admane_indiraicem_ac_in/EppC1OQV7WRIqjQNov14WTMB7mvejrasQjBHz2zyHZfBcA?e=JUdda">my.sharepoint.com/:f:/g/personal/ashwini_admane_indiraicem_ac_in/EppC1OQV7WRIqjQNov14WTMB7mvejrasQjBHz2zyHZfBcA?e=JUdda</a>
Mechanical	I	SE(2019)	Solid Mechanics	Chalk Board & PPT	<a href="https://nptel.ac.in/courses/112/102/112102284/">https://nptel.ac.in/courses/112/102/112102284/</a>	<a href="https://archive.nptel.ac.in/courses/112/102/112102284/">https://archive.nptel.ac.in/courses/112/102/112102284/</a>
Mechanical	I	TE(2019)	Numerical and stastical Methods	Chalk Board & PPT	<a href="https://www.a4u.co.in/maheshbhong#UG%20NSM">https://www.a4u.co.in/maheshbhong#UG%20NSM</a>	<a href="https://www.a4u.co.in/maheshbhong#UG%20NSM">https://www.a4u.co.in/maheshbhong#UG%20NSM</a>
Mechanical	I	TE(2019)	Mechatronics	PPT & Video	<a href="https://www.tinkercad.com/dashboard?type=all&amp;collection=lessons">https://www.tinkercad.com/dashboard?type=all&amp;collection=lessons</a>	<a href="https://archive.nptel.ac.in/courses/112/107/112107298/">https://archive.nptel.ac.in/courses/112/107/112107298/</a>
Mechanical	I	TE(2019)	Design of Machine Elements	PPT	<a href="https://nptel.ac.in/courses/111107105">https://nptel.ac.in/courses/111107105</a>	<a href="https://archive.nptel.ac.in/courses/112/101/112101097/">https://archive.nptel.ac.in/courses/112/101/112101097/</a>
Mechanical	I	TE(2019)	Heat and Mass Transfer	PPT	<a href="https://archive.nptel.ac.in/courses/112/108/112108149/">https://archive.nptel.ac.in/courses/112/108/112108149/</a>	<a href="https://www.vlab.co.in/">https://www.vlab.co.in/</a>
Mechanical	I	BE(2019)	HVAC	PPT NPTEL video	<a href="https://archive.nptel.ac.in/courses/112/105/112105129/">https://archive.nptel.ac.in/courses/112/105/112105129/</a>	<a href="https://classroom.google.com/u/1/c/NTM4OTI2OTI1NiQ1">https://classroom.google.com/u/1/c/NTM4OTI2OTI1NiQ1</a>
Mechanical	I	BE(2019)	Turbomachinery	PPT & Video	<a href="https://www.a4u.co.in/hemantdarokar#BE%20Turbomachinery">https://www.a4u.co.in/hemantdarokar#BE%20Turbomachinery</a>	<a href="https://nptel.ac.in/courses/112105182">https://nptel.ac.in/courses/112105182</a>
Mechanical	I	BE(2019)	Dynamics of Machinery	PPT and video	<a href="https://classroom.google.com/c/Mzg2NTk0NTA0Nzk2">https://classroom.google.com/c/Mzg2NTk0NTA0Nzk2</a>	<a href="https://archive.nptel.ac.in/courses/112/101/112101096/">https://archive.nptel.ac.in/courses/112/101/112101096/</a>



  
**Dr. Mahesh Bhong**  
**Head of Department**  
**HOD(Mechanical)**  
 Indra College of Engineering and Management  
 Parandwadi, Pune 410 506



## Mechanical Engineering Department ICT tool Usage (AY 23-24)

Department	Sem	Class(Pattern)	Name of Subject	ICT tool Used	ICT Resource Link	ICT Resource Link
Mechanical	II	SE(2019)	Kinematics of Machinery	PPT, Animated Videos	<a href="https://www.a4u.co.in/ashwinigaikwad#SE-Kinematics%20of%20Machines">https://www.a4u.co.in/ashwinigaikwad#SE-Kinematics%20of%20Machines</a>	<a href="https://www.a4u.co.in/ashwinigaikwad#SE-Kinematics%20of%20Machines">https://www.a4u.co.in/ashwinigaikwad#SE-Kinematics%20of%20Machines</a>
Mechanical	II	SE(2019)	Fluid Mechanics	PPT, Animations Youtube	<a href="https://nptel.ac.in/courses/112104118">https://nptel.ac.in/courses/112104118</a>	<a href="https://me.iitp.ac.in/Virtual-Fluid-Laboratory/index.html">https://me.iitp.ac.in/Virtual-Fluid-Laboratory/index.html</a>
Mechanical	II	SE(2019)	Engineering Mathematics - III	PPT & NPTEL Videos	<a href="https://archive.nptel.ac.in/courses/111/108/11108081/">https://archive.nptel.ac.in/courses/111/108/11108081/</a>	<a href="https://archive.nptel.ac.in/courses/111/104/111104032/">https://archive.nptel.ac.in/courses/111/104/111104032/</a>
Mechanical	II	SE(2019)	Manufacturing Process	PPT and Video	<a href="https://archive.nptel.ac.in/courses/112/107/112107144/">https://archive.nptel.ac.in/courses/112/107/112107144/</a>	<a href="https://archive.nptel.ac.in/courses/112/107/112107144/">https://archive.nptel.ac.in/courses/112/107/112107144/</a>
Mechanical	II	TE(2019)	Design of Transmission System	PPT & Video	<a href="https://nptel.ac.in/courses/111107105">https://nptel.ac.in/courses/111107105</a>	<a href="https://archive.nptel.ac.in/courses/112/101/112101097/">https://archive.nptel.ac.in/courses/112/101/112101097/</a>
Mechanical	II	TE(2019)	Artificial Intelligence and Machine Learning	PPT & NPTEL Videos	<a href="https://www.a4u.co.in/maheshbhong#UG%20AIML">https://www.a4u.co.in/maheshbhong#UG%20AIML</a>	<a href="https://www.a4u.co.in/maheshbhong#UG%20AIML">https://www.a4u.co.in/maheshbhong#UG%20AIML</a>
Mechanical	II	TE(2019)	Surafce Engineering	PPT & NPTEL Videos	<a href="https://classroom.google.com/c/NjAxNTcwODUzMzM5/p/Njc4MjQyOTY4OTE2/details">https://classroom.google.com/c/NjAxNTcwODUzMzM5/p/Njc4MjQyOTY4OTE2/details</a>	<a href="https://classroom.google.com/c/NjAxNTcwODUzMzM5/p/NjY2NDQ0MTEwNzI2/details">https://classroom.google.com/c/NjAxNTcwODUzMzM5/p/NjY2NDQ0MTEwNzI2/details</a>
Mechanical	II	BE MECH	Energy Engineering	PPT, Animated Videos,	<a href="https://classroom.google.com/u/1/c/NjE3ODM3MzI1NDc2">https://classroom.google.com/u/1/c/NjE3ODM3MzI1NDc2</a>	<a href="https://nptel.ac.in/courses/103103206">https://nptel.ac.in/courses/103103206</a>
Mechanical	II	BE MECH	Electric & Hybrid Vehicle	PPT, Animated Videos, W	<a href="https://onlinecourses.nptel.ac.in/noc24_ee30/preview">https://onlinecourses.nptel.ac.in/noc24_ee30/preview</a>	<a href="https://classroom.google.com/u/3/c/NjQ2OTQyMjcwMzI2/details">https://classroom.google.com/u/3/c/NjQ2OTQyMjcwMzI2/details</a>
Mechanical	II	BE MECH	Energy Audit and Mangement	PPT, Animated Videos, W	<a href="https://nptel.ac.in/courses/108106022">https://nptel.ac.in/courses/108106022</a>	<a href="https://indiraicemac-my.sharepoint.com/:f/r/person/ashwini_admane_indiraicem_ac_in/Documents/Energy%20Audit?csf=1&amp;web=1&amp;e=1tkqJs">https://indiraicemac-my.sharepoint.com/:f/r/person/ashwini_admane_indiraicem_ac_in/Documents/Energy%20Audit?csf=1&amp;web=1&amp;e=1tkqJs</a>
Mechanical	II	BE MECH	Computer Intergrated Manufacturing	PPT & Video	<a href="https://www.a4u.co.in/hemantdarokar#BE%20Computer%20Integrated%20Manufacturing">https://www.a4u.co.in/hemantdarokar#BE%20Computer%20Integrated%20Manufacturing</a>	<a href="https://nptel.ac.in/courses/112104289">https://nptel.ac.in/courses/112104289</a>



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