



GOVERNMENT POLYTECHNIC AURANGABAD

ELECTRONICS & TELECOMMUNICATION

E -NEWS LETTER: 1 FEB 2020

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To be the internationally accredited institute that contributes in the development of competent professionals and entrepreneurs on the platform of technology based systems, blended learning through highly qualified and trained staff.

VISION OF INSTITUTE

MISSION OF INSTITUTE

To educate and train the students for making globally competent individuals, professionals, technicians and skilled human resources through world-class curriculum, student centric academic systems, team of committed, trained faculty and staff contributing to the student's, successful employment and entrepreneurship with a spirit of patriotism and concern for environment.

VISION OF DEPARTMENT

To be a center of excellence, assuring competitive technical manpower for emerging trends in the field of Electronics & Telecommunication to address multidisciplinary sectors .

MISSION OF DEPARTMENT

- [1] Strengthen the knowledge & skills to convert concept, idea into system for employability /entrepreneurship.
- [2] Develop software skills needed in the field of electronics.
- [3] Expose the students to industrial environment.
- [4] Build personality, teamwork spirit, professional ethics & social concern.

“ **Design is not how it looks like and feels like. Design is how it works**” – Steve Jobs



INVENTIONS

Electricity, being a natural phenomenon, was discovered rather than invented by the work of many great minds throughout history. Early work was conducted in ancient Greece and Rome on electric fish by philosophers like Pliny the Elder.

But it wouldn't be until the 1600s and 1700s that it was studied scientifically. The first person to coin the term "electricity" was a British scientist called William Gilbert who was studying the effects of electricity and magnetism on amber. .

Direct current, or DC for short, was first produced artificially by Alessandro Volta in the early 1800s.

PROGRAM OUTCOMES (POs)

- 1. Basic and Discipline specific knowledge:** Apply knowledge of basic mathematics, science and engineering fundamentals and engineering specialization to solve the engineering problems.
- 2. Problem analysis:** Identify and analyse well-defined engineering problems using codified standard methods.
- 3. Design/ development of solutions:** Design solutions for well-defined technical problems and assist with the design of systems components or processes to meet specified needs.
- 4. Engineering Tools, Experimentation and Testing:** Apply modern engineering tools and appropriate technique to conduct standard tests and measurements.
- 5. Engineering practices for society, sustainability and environment:** Apply appropriate technology in context of society, sustainability, environment and ethical practices.
- 6. Project Management:** Use engineering management principles individually, as a team member or a leader to manage projects and effectively communicate about well-defined engineering activities.
- 7. Life-long learning:** Ability to analyse individual needs and engage in updating in the context of technological changes .

PROGRAM SPECIFIC OUTCOMES (PSOs)

- 1. Modern software usage:** Use latest PCB making software for layout design, artwork, programming simulation, MATLAB, microcontroller programming.
- 2. Scrutinize & control electronics system:** Scrutinize right type of machinery, equipment, tools, models and software for implementation & control of particular electronics & telecommunication system.



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INVENTIONS

The basic principle behind the incandescent light bulb can be traced to the work of Sir Humphrey Davy over two hundred years ago. He discovered that by passing an electrical current through a thin wire, that is would heat up and give off light.

In 1878, another British chemist, Joseph Swan, managed to create and publically demonstrate a light bulb based on carbon filaments.

PROGRAM EDUCATIONAL OBJECTIVES [PEOS]

- PEO1:** Inculcate profound knowledge of electronics & telecommunication
- PEO2:** Evolve software skills needed in the field of electronics.
- PEO3:** Provide nourishing environment for new concepts & ideas for problem solving and/or develop new system leads to entrepreneurship/employability.
- PEO4:** Build virtuous, gregarious, social concerned personality



FROM HOD'S DESK

It gives me immense pleasure in welcoming all the students to the new semester of the academic year 2019-2020 of our Electronics and Telecommunication Department, I wish a warm welcome to the students who have registered for this academic year

Project guidance in Project LAB by : Prof R.A Burkal and Alumnus :



Project Lab : [6 FEB 2020] Students of third year doing project work , Prof R.A Burkul guiding to students , another group working on project and adjacent is alumnus Ankush R Nimgaokar also guiding to group of students .



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INVENTIONS

5G has been touted as a monumental technological development that could eventually connect and digitize everything in our lives. But that doesn't mean people actually want to see it at work.

"Aesthetics have become extremely important," said Mike Fabbri, VP of cell site solutions and services at wireless equipment and services provider CommScope.

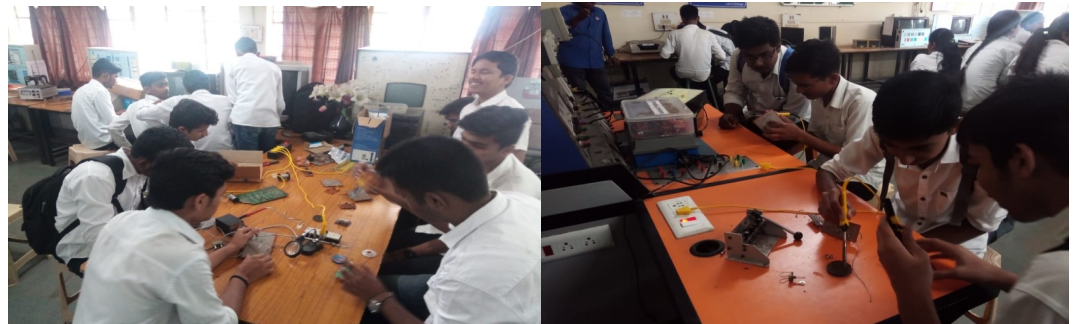
Fabbri is in charge of CommScope's three-year-old "Metro Cell" business, which has so far helped to deploy roughly 10,000 4G and 5G transmission sites around the US. However, most of those sites aren't the traditional, 100-foot-tall macro cell towers that most people are familiar with when it comes to cellphones.

TEACHERS DAY CELEBRATION :



[5 SEP 2019] : Teachers day was celebrated with great pomp and joy , Mr Nitin Lokhande Head of Radio Mirchi 94.3 graced as Chief guest of this function. Principal F.A Khan guided students with his inspiring couplets , students also showcase their abilities through mini project demonstration

MAKING OF MICROPROJECT :



Students practicing art of doing project , this activity helps students to know the components , use of multimeters, CRO and function generators and it is helpful to work in implant trainings and plays significant role in doing projects.



EXPERT LECTURE :

14 JAN 020 : on " Recent trends in Electronics " was given by Bablu Jadhav : owner Tapsya electronics. Students were made aware to update in terms of skills needed in industry .



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INVENTIONS

2010: 3D televisions start hitting the market, spurred by popular 3D blockbusters like Avatar.

2006: Sony releases its Blu-ray disc format, capable of holding up to 27GB despite being the same size as a DVD.

2006: Flat screen TVs and HDTVs become affordable for the first time.

2005: Flat screen TVs and HDTVs are introduced for the first time.

2004: DVDs outsell VHS tapes for the first time.

2000: The Digital Video Disc (DVD) is introduced.

1996: Digital satellite dishes 18 inches .

ALUMNA'S TALK : NIKITA JADHAV AND PRAPTI BURKUL



- [1] **Nikita Jadhav** [Lecturer in CSMSS Engg College A'bad'] shared her success story how to be a transducer in real life by making transition from failure to success and from worst condition to best condition .
- [2] **Prapti R Burkul** [Completed M.S and & working as research assistant in north Florida university] had guided students in her India visit and inspire girls to go internationally in studies and jobs .

ONE DAY WORKSHOP ON SATELLITE COMMUNICATION :



Students of third years visited CSMSS SATELLITE centre and understood satellite communication system in real time. Prof R.M Ingle ,Prof L.B Kamkede and A.D Dabhade contributed to success of w/s.

BSNL VISIT



Third years students visited BSNL and understood telephone switching system and Mobile switching system. Prof D.D Ahirrao ,Prof R.M Ingle Prof L.B Kamkede and Prof R.G Dhokte contributed to pronouncing success of this visit .



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INVENTIONS

Transparent Smartphones

Inventors, Jung Won Seo, Jae-Woo Park, Keong Su Lim, Ji-Hwan Yang and Sang Jung Kang, who are scientists at the Korean Advanced Institute of Science and Technology, have created the world's **first transparent computer chip** .

H.O.D GUIDANCE :

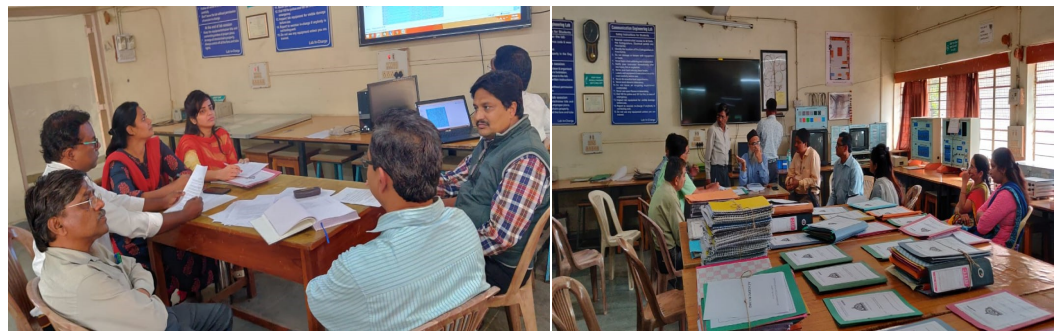


D.D Ahirrao sir guided Third year students to go for need and industries based projects. Under Guidance of Ahirrao sir students have applied for Project competitions. Dept has made Implant training as flagship program. Implant training is well coordinated by A.S Abak sir and S.S Mahajan sir.

Hollow Flashlight

Ann Makosinski is a 16-year-old student who competed against thousands of other young inventors from around the world to win first prize and a \$25,000 scholarship at Google's International Science Fair.

NBA PREPARATIONS :



NBA Preparations : In Department we had been influenced by guidance of Principal F.A Khan ,D.D Ahirrao sir and Department Coordinator Dr.S.B Dhoot Criteria wise every one is contributing to pronounce success .

Instant Prints

Creating instant prints from a digital camera is one of the new electronic inventions in printing. The Polaroid PoGo™ is a small portable **printer that weighs only a few ounces**.



PROF A.S ABAK CONTRIBUTION TO MSBTE :

Prof A.S Abak was deputed to Andaman Nicobar island ,union territory of India as Controller of Exam .



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SIGNALS

Prehistoric: Fires, Beacons, Smoke signals, Communication drums, Horns

6th century BCE: Mail

5th century BCE: Pigeon post

4th century BCE: Hydraulic semaphores

1500 Korean hwacha net uses hwachas arrows to send mails throughout a town.

15th century CE: Maritime flag semaphores

1672: First experimental acoustic (mechanical) telephone

1790: Semaphore lines (optical telegraphs)

1867: Signal lamps

1877: Acoustic phonograph

1900; optical picture

MCED VISIT



[14 JAN 2020] Under subject of Entrepreneur Development Second year students visited at MCED in MIDC Railway station . Students were benefitted and they also got desire to be an Entrepreneur.

EXPERT LECTURE BY PATIL SIR AND JOHI MAM



Expert Lectures were delivered as to cover gap of Control system and PLC and Microcontroller .



Traditional ceremony of coconut breaking for new painting of Electronics and telecommunication building was done by Prof D.D Ahirrao sir.



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PBOS MEETING

1838: Electrical telegraph. See: Telegraph history

1830s: Beginning of attempts to develop "wireless telegraphy", systems using some form of ground, water, air or other media for conduction to eliminate the need for conducting wires.

1858: First trans-Atlantic telegraph cable

1876: Telephone. :

1880: Telephony via lightbeam photophones

1896: First practical wireless telegraphy systems based on Radio. See: History of radio.

- **1900:** first television displayed only black and white images. 1914: First North American transcontinental telephone calling 1927: Television. See: History of television

- **1927:** First commercial radio-telephone service, U.K.–U.S.

1930: First experimental videophones



[14 Jan 2020] In nutshell PBOS meeting was organized for 6th revision curriculum implementation ,updating of curriculum , NBA disuccion was made ,Prof D.D Ahirrao sir explain know how of vision mission. Dr. S.B Dhoot has explained the need of electives .PBOS members were Mr Jagdish Bangad , Mr Dongre,MR Abhijit Patil ,Mr Dattar ,Mr Pawar ,Principal F.A Khan presided this meeting and express their views about revision , implementation and future plaining for NBA.

MAHAH EXPO VISIT



[9 JAN 2020] Students of third year visited to MAHAEXPO 2020 Kalagram Aurangabd and had conversations with entrepreneurs where they realized what is real job of engineer “ Engineer is made to give jobs and not to take jobs”. Prof S.S Mahajan,Prof S.R Sarangpure Prof G.G Vaishnav and Prof R.S Girhe contributed to success of this visit.



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EXPATRIATE ALUMNI OF OUR E & TC DEPARTMENT

1950: Semiconductor era begins

1956: Transatlantic telephone cable

1959: Metal-oxide-semiconductor field-effect transistor (**MOSFET**)

1962: Commercial telecommunications satellite

1964: Fiber optical telecommunications

1965: First North American public videophone network

1969: Computer networking

1972: Discrete cosine transform (DCT) digital media data compression

1973: First modern-era mobile (cellular) phone

1974: Internet)

1979: INMARSAT ship-to-shore satellite communications

1981: First mobile (cellular) phone network

1982: SMTP email

1998: Mobile satellite hand-held phones

2003: VoIP Internet Telephony



[1] **BHAGYSHREE KAKAD** SOFTWARE TEST ENGINEER .ENDRESS HAUSER .

[2] **PRAPTI R BURKUL** RESEARCH ASSISTANT NORTH FLORIDA UNIVERSITY AMERICA .

[3] **DAGDU GAIKWAD** WORKING IN US AS SOFTWARE ENGINEER EHO RECENTLY GOT FIRST PRIZE IN CHESS COMPETITION .

FROM HOD 'S DESK

Dear students and staff I am thankful to all specially Prof A.S Abak ,Prof Dr. S.B Dhoot , Prof R.A Burkul Prof R.M Ingle ,Prof S.S Mahajan ,Prof S.D Nimbekar , Prof L.B Kamkhede ,Prof P.B Nagaroje ,Prof S.R Sarangpure ,Prof R.S Girhe and Prof G.G Viashnav & all.

I expect you will all extended support for this news letter in next edition. I also request students to take active part in writing articles in this newsletter. Thanks.

Prof D.D Ahirrao

[H.O.D]

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