



ELECTRONICS & TELECOMMUNICATION NEWS LETTER NEWS LETTER

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1 FEBRUARY 2020

MESSAGE FROM PRINCIPAL F.A KHAN



Best wishes & Greetings for Students and staff of E& TC Dept. The Newsletter issue for the new year has been aptly and quintessentially chosen for our students of and Telecommunication.

Academics of E&TC is a shared commitment between dedicated teachers, motivated students and enthusiastic parents with high expectations.

Today, the role of a Department is not only to pursue academic excellence but also to motivate and empower its students to be lifelong learners, critical thinkers, and productive members of an ever-changing global society. More than a decade back Saffron pledged to transform education

Institute provides an atmosphere to our students for multifaceted development, where children are encouraged to channelize their potential in the pursuit of excellence. I ,Congratulate to Students staff for bringing this E News Letter .

MESSAGE FROM PROF D.D AHIRRAO H.O.D [E & TC]



Dear students we are bringing E News letter for our department , this academic year . I just want to say that we provide an atmosphere to our students for multifaceted development, where our students are encouraged to channelize their potential in the pursuit of excellence.

This can only be possible in a holistic, student-centric environment. The talents, skills, and abilities of each student need to be identified, nurtured, and encouraged so that he / she is able to reach greater heights.

I wish to all students and faculties to fulfill department's vision and mission by our deeds. Institute provides an atmosphere to our students for multifaceted development, where children are encouraged to channelize their potential in the pursuit of excellence. I Congratulate to Students staff for bringing this E News Letter

Engineer is one who pioneers our civilization.

Tree Plantation by Electronics and Telecommunication Department

On 8 July 2019 Joint Director Mahesh Shivankar Regional office Aurangabad and Vice Principal S.R Bhasme commemorated VAN mahotsav by planting trees .

Van Mahotsav is a festival which was started by Kulapati Kanaiyalal Munshi, the Union Minister for Agriculture to

create enthusiasm among masses for forest conservation and planting trees. It is now a week-longest festival. Which is celebrated on different days in different parts of India, but usually between 1st July to 7th July. began in year .



Tree plantation : by Joint director Mahesh Shivankar and Vice Principal S.R Bhasme

Address to students by H.O.D Prof D.D Ahirrao sir.

I feel privileged to lead Electronics and Telecommunication , which offers great opportunities for the students of Electronics and Telecommunication .It is our goal to make each and every student to succeed. We offer our students the best possible opportunities to become confident,

thoughtful young people who are prepared for any future challenges, in an exciting and increasingly global world.

At our department , we are very proud of our caring, inclusive ethos where we set high standards and expectations for our students to achieve

and behave their very best., From the moment a a first year student joins our Department , we want them to feel a sense of happiness and belonging, as this is essential to their future success.



CLEANLINESS DRIVE FROM STAFF AND STUDENTS



Expert Lecture on ARM & ARM based Microcontroller by Snehal Ballal

On 22 August 2019 Students of third year were given hands on training and imparted knowledge of ARM based Microcontrollers, they studied and perform practicals on (MCU) contain a 32-bit wide data bus. They are the brain of an embedded system, a computer scaled down to a single compact chip for managing a specific operation, and are highly integrated single chips with a processor, memory, I/O

peripherals, timer/counter, and communication ports all contained within. The Processor present in the MCU is the core/CPU which decides the functioning of an MCU. An ARM MCU is developed by ARM Holdings that contains an ARM processor core developed based on Advanced RISC Machine (ARM), **Sneha Ballal is director of Yash Autptech systems Ahmed Nagar,**



Expert Lecture on Arduino by Mr Satish Jadhav & Swapnajit Kadam

On 27 and 28 August 2019 one day workshop was organized for third year students, Arduino workshop was conducted by Satish Jadhav and Swapnajit Kadam from Nasik Foundation.



Expert Lecture on Industrial Automation by Prabhakar Gawali

Students realized that Optimized production processes are essential to achieve a good competitive position. This means flexible produc-

tion systems with the right level of IT and automation. Automation gives faster, safer production processes which are more effi-

cient, flexible, reliable, sustainable and cost-effective.



ICT based ARDUINO Workshop for Faculties.



[1] Faculties participated [2] Joint Director Mahesh Shivankar addressing [3] Principal F.A Khan addressing

On 8 July 2019 One day ICT based workshop on Arduino using spoken Tutorial MOOCS for the faculties of Government Polytechnics in Aurangabad . Government Polytechnic Aurangabad had organized “One day ICT based workshop on Arduino using spoken tuto-

rial MOOCs .The Program witnessed of 17 faculties of 8 Government Polytechnic from Aurangabd, Jalna, Beed, ,Osmanabad ,Jintur,Hingoli and Nanded dsitriets.

All of whom were nominated by their principals and the activity coordi-

nated by Principal F.A Khan and Prof D.D Ahirrao H.O.D [E&TC] .

Anchored by

Mam L.B kamkede

Vote of thanks :

Prof R.A Burkul

Laboratory Award (State level) under “Promoting laboratory development” for adopting best laboratory practices in the ‘Communication Laboratory’ for the year 2016-2017



Project Competition winners of 2019

Sr. No.	Name of Student	Title of Project	Level of Competition	Organized By	Prize
01	Shruti Dhongade	WIRELESS DIGITAL NOTICE BOARD	State Level	MGM Polytechnic Aurangabad	First Prize
02	Chanchal Borude				
03	Dale Aditya	HOME AUTOMATION USING ANDROID	State Level	MGM Polytechnic Aurangabad	Second Prize
04	Deoraye Swapnil				

Delivery of appropriate course work by industry expert

Sr.	Industry Expert	Topic of course work	For whom and date
	Prabhakar Gawali, HOD(Automation), Prolific Systems & Technologies Pvt. Ltd, Pune	Automation and its programming.	III Year Div.A&Div.B 01/09/2018 One Day Workshop
1	D.L.Bhuyar, HOD & M.G.Makrani, LETX, A.D.Deshmukh, LETX, CSSMS College of Engineering , Aurangabad	Arduino Based Programming (Hands on practice was given to all participants on 20Arduino practical boards)	III Year Div.A&Div.B 19/09/2018 One Day Workshop
2	Mr. Jadhav Sandip University, Nashik	Automation using Atmega328P	III Year Div.A&Div.B 26/02/2019 One Day Workshop

Industrial Visit 2018-19

Sr. No.	Name of Industry	Class	Date
1	BSNL visit	III Year Div A/ Div B	12/03/2019
2	Visit to MCED, Aurangabad	III Year Div.A/ Div.B	26/03/2019

Expert Lectures 2018-19

Sr. No.	Name of Experts	Topic	For whom and date
1	Sudhir Sambare, Director, Luans Electronics, Plot No 27, CIDCO Service Industry Zone, Opp. Bharat Bazar, Aurangabad- 431003, Maharashtra, India	Entrepreneurship Development	III Year 04/08/2018
2	Prabhakar Gawali, HOD(Automation), Prolific Systems & Technologies Pvt. Ltd, Pune	Industrial Automation	II Year & III Year 01/09/2018
3	Vikas Chaitanya, Yashika CLC, CIDCO, Aurangabad	Industrial Training: Industry Expectation	II Year & III Year 29/09/2018
4	S.P.Kharte, HOD & S.S.Sonone, & Technology, Aurangabad	IC Fabrication & Technology : New technologies regarding development in IC fabrication	III Year 19/01/2019
5	T.Y.Kanade, Director, Avishko, 9, Mahalaxmi Chambers, Pipeline Road, Savedi, Ahmadnagar - 414003	PLC & SCADA	III Year 02/02/2019
6	Vikas Bhamburdekar, Precision Power Products Pvt Ltd, MIDC, Waluj, Aurangabad	Applications of Electronics Systems in Defence Department	II Year & III Year 05/04/2019

MOU's With the Industries

To improve and strengthen the Industry Interaction Electronics & Telecommunication Engineering Department have signed MOU's with different industries in Aurangabad as shown below-

Sr No	Name of the Institute	Name of the organization	MOU Date	Brief about MOU	MOU outcome beneficiary
1	Govt.Poly.Aurangabad	Krish Automation, Aurangabad	03/10/2018	MOU is done for industrial automation and conduct PLC training at the institute for institute and society under revenue generation.	Students and Staff
2	Govt.Poly.Aurangabad	Precision Power Products PVT.Ltd, Aurangabad	03/10/2018	MOU is done for industrial automation. Expert in defence related special purpose machines.	Students and Staff
3	Govt.Poly.Aurangabad	Vidya Robotics, Aurangabad,	04/10/2018	MOU is done for industrial automation, robotics and microcontroller based interfacing and controls.	Students and Staff

Community Services

- A. Electronics and Telecommunication Engg. Department of Government Polytechnic, Aurangabad is always supporting the service demands from the community with respect to different requirements - a. Testing of Xerox machine/Printers,
- b. CCTV installation in Commissioner Office, Aurangabad,
- c. Testing of TV sets to be supplied to different Zilla Parishad Schools in Aurangabad and nearby region.

Electronic Auto Rickshaw Meter Testing:

Electronics and Telecommunication Engg Department of Government Polytechnic, Aurangabad has started Auto Rickshaw meter testing with the permission granted by Regional Transport officer (RTO Aurangabad) letter ref. 7904/RTO office/Aurangabad dated 30/05/2017.

As per the guidelines of RTO Aurangabad Electronics department has procured original pulse generators from the authorized manufacturers of Electronic Rickshaw meter. Using respective pulse generator Auto rickshaw meter are being tested. This rickshaw meter is daily checked for accuracy of pulses /Km as specified by respective meter manufacturer. After testing certificate is issued to the vendor who submit these rickshaw meter for testing.

This activity is started from 6/12/2018. Till today 1382 meters are tested. The records of all these is maintained as per the guide lines of RTO for future reference.

The format of certificate is attached here with.

		शासकीय तंत्रनिकेतन औरंगाबाद (महाराष्ट्र शासनाची स्वायत्त संस्था) Government Polytechnic, Aurangabad (An Autonomous Institute of Govt. of Maharashtra)
Department of Electronics & Telecommunication Engineering		No.GPA/ETX/ERMT/2018/ 100002 Date: 07/12/2018
Certificate for Electronic Meter		
Meter No.	: G 61570	
Meter Make	: Global	
Vehicle No.	: MH 20 DC 4493	
Vehicle Type	: CNG/LPG Appe City	
Firm Name, Address & Trade Cert. No.	: Y F Khan E-Meter Services - Kotwalpura, Aurangabad-431001 [Trade Cert.No.MH20 TC 81]	
Payment Receipt No. & Date	: 3856209 : 07/12/2018	
Fare Rate: Minimum fare Rs.14/- for initial distance upto 1.0 kilometer. There after Rs.1.40 for every 100 fare meters and waiting charges Rs.84.00 for 1 Hour.		
The meter has been tested as per requirements of Maharashtra Motor Vehicle Rules 1989 and has been found to register correctly at 1360 Pulses per kilometer.		
 Testing In-Charge Electronics & Tel. Department		 Principal Govt. Polytechnic, Aurangabad
Note: Detention is not separately charged . As and when vehicle on hire is detained, the fare is indicated in the meter.		

Various Personality Development related activities conducted in due course for the students :

Market survey is compulsory in the project activity

Annual Social Gathering is of the students, for the students, by the students.

”ASENT” (Association of Students of Electronics & Telecommunication)

National Anthem play every day at 11.30am in the institute, activity is operated by Dept

Various auspicious occasions are available for student to deliver speech (Shivaji Maharaj jayanti, Dr. Babasaheb Ambedkar Jayanti etc.)

Gandhi Jayanti Celebration by the play “The story of my experiment with truth ”(150th Birth Centenary year)

Cleanliness drive under Swachha Bharat Abhiyan in Gulmandi area, Aurangabad city

Tree plantation drive in garden area in front of Electronics & Telecommunication Dept. Building

Oath taking event on “Sadbhavana Divas”



Oath taking of anti Tobacco day



Garden area after Tree plantation in front of Electronics & Telecommunication Dept. Building



Teachers day celebrated with great pomp



Students organized teaches day , Principal F.A khan & H.O.D D.D Ahirrao arriving



Teachers' Day in India is celebrated on 5 September every year to commemorate the birth anniversary of Dr. Sarvepalli Radhakrishnan - First Vice President of India and the Second President of India and an educationist at heart. While globally, Teachers' Day is celebrated on 5th

October; in India, we celebrate it on 5th September from 1962 onwards.

He was a renowned scholar, recipient of Bharat Ratna, first Vice- President and second President of independent India. As an educationist, he was an advocate of edification, and was a distin-

guished envoy, academician, and above all a great teacher.

Principal F.A Khan Prof. D.D Ahirrao and Dr. Dhoot Sir expressed their views..On this Very day Alumni of G.P Ambad inspired students of Dept to go for IES exam.Thanks to Burkul sir .



Second year students exposure to Electronics

Our Second year students had session to identify components of Electronics so they can feel at ease in practical and projects,

For this session Prof. R.A Burkul ,S.S Mahajan and S.D Nimbekar



Students Vision Board “ASENT”

Students vision board was inaugurated by our Beloved Principal F.A Khan ,Head of Dept D.D Ahirrao and Prof A.S Abak ,S.S Mahajan,R.M Ingle,S,D Nimbekar ,Dr S.B Dhoot ,Madam .B Kamkhede and Madam P.B Nagaroje also graced this inauguration by their presence .

Students can display their art ,like news ,sports event ,technical writings and Birthday wishes .

CHANDRAYAAN 2

Chandrayaan 2 is an Indian Space Research Organization (ISRO) mission comprising an orbiter and a soft lander carrying a rover, scheduled to launch to the Moon in July 2019. The primary objective of Chandrayaan 2 is to demonstrate the ability to soft-land on the lunar surface and operate a robotic rover on the surface. Scientific goals include studies of lunar topography, mineralogy, elemental abundance, the lunar exosphere, and signatures of hydroxyl and water ice.

Spacecraft and Subsystems

The Chandrayaan 2 orbiter is a box-shaped craft with an orbital mass of 2379 kg and solar arrays capable of generating 1000 W power. The orbiter communicates with the Indian Deep Space Network and the lander. The orbiter will have a scientific payload comprising a visible terrain mapping camera, a neutral mass spectrometer, a synthetic aperture radar, a near infrared spectrometer, a radio occultation experiment, a soft X-ray spectrometer and solar X-ray monitor.

The lander, named Vikram, has a mass of 1471 kg (including the rover), and can generate 650 W of solar power. The lander can communicate directly to the Indian Deep Space Network, the orbiter, and the rover. The lander will carry a camera, seismometer, thermal profiler, Langmuir probe, and a NASA-supplied laser retroreflector.

The rover, Pragyan (also Pragyaa), is a 6-wheeled vehicle with a mass of 27 kg that runs on 50 W of solar power and can travel up to 500 m at a speed of 1 cm per second. The rover communicates directly with the lander. the rover will hold cameras, alpha-proton X-ray spectrometer, and a laser-induced ablation spectroscopy experiment.

Mission Profile

Chandrayaan 2 was launched on 22 July 2019 at 9:13 UT (2:43 p.m. Indian Standard Time) from Satish Dhawan Space Center on Sriharikota Island on an ISRO Geosynchronous Satellite Launch Vehicle (GSLV) Mark III. The lander-orbiter pair went into an initial elliptical (170 x 40400 km altitude) Earth parking orbit, followed by a trans-lunar injection on 14 August. The pair entered lunar polar orbit on 20 August. The lander and orbiter separated on September 2. The orbiter evolves into a 100 km altitude circular polar orbit and the Vikram lander maneuvered into a 30 x 100 km orbit with a plan to land on the surface in the high latitude areas near the south pole, between two craters, Manzinus C and Simpelius N, on 7 September between about 1:30 and 2:30 a.m. Indian local time (Sept. 6, 20:00-21:00 UT). Contact was lost during the descent at an altitude of about 2.1 km, the data are being analyzed. The orbiter portion of the mission is planned to last 1 year. The rover was to be deployed using a ramp shortly after landing. The lander and rover portions of the mission were planned for 14-15 days, one period of lunar daylight.

Career Fair 2019 : Lion share of Department in organization



Career Fair witnessing huge gathering of parents and students.



Our Institute had arranged Career Fair on 13-06-2019 at Gymkhana hall .It was sponsored by MSBTE, dignitaries on the dais were graced by **Hon. Dr Pawar** Deputy Secretary RBTE Aurangabad , **Shrimati Patil** Deputy education officer Z.P Aurangabad , **Shri Jawalkar** President of Headmaster Association Aurangabad and Principal F.A Khan . This Programme has helped students and parents to know about Polytechnic education.

In processing of career fair Prof D.D Ahiraro and Prof R.A Burkul played instrument role in pronouncing success of this programme.

NEWS SECTION

5G

After being rolled out in the United States, South Korea, China, and other countries, 5G is slowly making its way in India to provide faster data downloading and uploading speed with lower latency and stable connections. However, it still has big challenges to deal with. In this slideshow, ET Telecom points out the issues hindering the 5G rollout in India

\$50-billion foreign investment

The sharp cut in corporate tax and lower rate for new domestic units can help attract a whopping \$50 billion (about ₹3.5 lakh crore) of foreign investment into telecom gear manufacturing, said sector experts.

Lower corporate tax for greenfield units, they said, could give India an edge over Vietnam and Malaysia in attracting top dollars into local gear production.



5G technology is not far from becoming a part of our everyday lives. As of now, around 220 operators in 88 countries are testing this technology, 18 countries are likely to have a 5G launch by end of 2019, and additionally 20% of the countries globally are looking at its adoption by 2020.

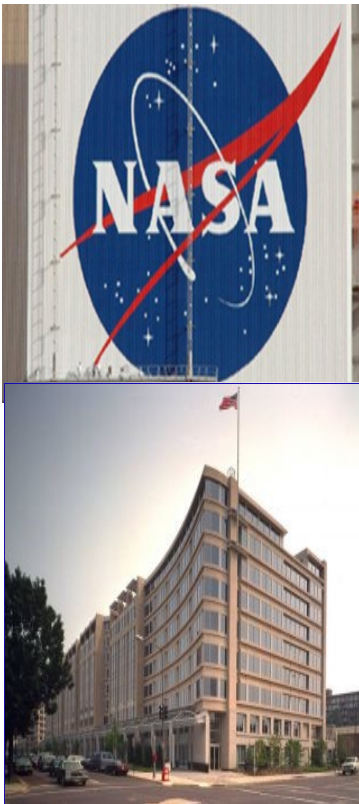
Each generation of technology opens into a world of new opportunities; the telecommunications industry is no

exception to that rule, more so with the onset of 5G – the fifth generation of mobile and data communication.

It promises everything a generational shift should – blinding speeds, impressively low latency, and the capacity to support an incredibly massive number of connections. All this compounded with the provision of private Long-Term Evolution networks (LTE) and edge computing.

Advent of 5G

The technology has created a buzz, both at an enterprise level and on a global scale. While the standards are yet to be defined, until the 2019 World Radio communications Conference at least, the trailer promises a blockbuster! What sparks 5G enthusiasm is the plethora of opportunities and value from new 5G use cases, especially in the widespread adoption of the Internet of Things (IoT).



NASA stands for National Aeronautics and Space Administration. NASA is a U.S. government agency that is responsible for science and technology related to air and space. The Space Age started in 1957 with the launch of the Soviet satellite Sputnik.

NASA opened for business on Oct. 1, 1958. The agency was created to oversee U.S. space exploration and aeronautics research.

The administrator is in charge of NASA. The

NASA administrator is nominated by the president and confirmed by a vote in the Senate. NASA helps teachers prepare students who will be the engineers, scientists, astronauts and other NASA workers of the future. They will be the adventurers who will continue exploration of the solar system and universe. NASA has a tradition of investing in programs and activities that inspire students, educators, families and communities in the excitement and discovery of exploration. NASA of-

fers training to help teachers learn new ways to teach science, technology, engineering and mathematics. The agency also involves students in NASA missions to help them get excited about learning.

NASA

VIKRAM SARABHAI MESSAGE

There are some who question the relevance of space activities in a developing nation. To us, there is no ambiguity of purpose. We do not have the fantasy of competing with the economically advanced nations in the exploration of the Moon or the planets or manned space-flight. But we are

convinced that if we are to play a meaningful role nationally, and in the community of nations, we must be second to none in the application of advanced technologies to the real problems of man and society, which we find in our country. And we should note that the application of sophis-

ticated technologies and methods of analysis to our problems is not to be confused with embarking on grandiose schemes, whose primary impact is for show rather than for progress measured in hard economic and social terms.

VIKRAM SARABHAI MESSAGE

Very many individuals with myopic vision questioned the relevance of space activities in a newly independent nation which was finding it difficult to feed its population. But neither Prime Minister Nehru nor Prof. Sarabhai had any ambi-

guity of purpose. Their vision was very clear: if Indians were to play a meaningful role in the community of nations, they must be second to none in the application of advanced technologies to their real-life problems. They had no inten-

tion of using it merely as a means of displaying our might.

**FROM HOD 'S DESK**

Dear students and staff I am thankful to all specially 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.N Nagaroje & 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.

Publisher : Prof D.D Ahirrao H..O.D [E& TC]

Editorial committee : Prof S.B Dhoot ,Prof R.A Burkul and Prof R.M Ingle . Editor : Prof A.D Dabhade

Institute Vision

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.

Institute Mission

To educate and train 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 students, successful employment and entrepreneurship with a spirit of patriotism and concern for environment.

Department Vision

To be a centre of excellence, assuring competitive technical manpower for emerging trends in the field of electronics & telecommunication to address multidisciplinary sectors.

Department Mission

M1: Strengthen the knowledge & skills to convert concept, idea into system for employability/ entrepreneurship.

M2: Develop software skills needed in the field of electronics.

M3: Expose the students to industrial

M4: Build personality, teamwork spirit, professional ethics & social concern.