

G. S. Mandal's

Maharashtra Institute of Technology, Aurangabad Department of Electronics & Telecommunication Engineering

# E-Rêves

Artificial Intelligence

Vol: 3 Issue:2

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Projecto

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Talento

Editorial Message

Dear Readers,

Welcome to this new edition of E-Rêves Magazine!
Thank you for huge response of previous Issues. Our team really does appreciate your support and faith in us.

Technology moves at breakneck speed, and we now have more power in our pockets than we had in our homes in the 1990s. Artificial intelligence (AI) has been a fascinating concept of science fiction for decades, but many researchers think we're finally getting close to making AI a reality. Basically, artificial intelligence (AI) is the ability of a machine or a computer program to think and learn. The concept of AI is based on the idea of building machines capable of thinking, acting, and learning like humans.



Ryzen Embedded V1000 processor with COM Express (RCE) modules.

The Ryzen Embedded V1000 processor, when combined with rugged COM Express (RCE) modules, can be used in extreme conditions as the Zen micro-architecture can sizeable increase the instructions per clock cycle by up to 52%.

In terms of interfaces, the V1000 processor includes up to four USB 3.1 interfaces with transfer rates of up to 10Gbps, Gigabit Ethernet and up to 16 PCIe Gen 3.0 lanes for generic expansions and 2x SATA Gen 3.0 for storage and audio. RCE modules also offer protection against high electromagnetic compatibility (EMC), the aluminium housing shields the electronics against incoming and outgoing electromagnetic radiation from all sides.



Bluetooth 5.

The latest version of the Bluetooth standard introduces a number of improvements that will be of value to many applications but will perhaps be most important for the Internet of Things (IoT).

The increased range and faster data rates do not require any more power but cannot be used at the same time. Bluetooth 5's enhanced data rate (EDR) supports higher transmission speeds of up to 2Mbps without increasing output power.

Bluetooth 5 has a theoretical range of up to 400 meters, which probably means about 120 meters in a more realistic environment. This is about four times the range of the previous version at the same power consumption.

Bluetooth 5 introduces support for mesh networking where all nodes can communicate directly with one another.

Vision of Institute: MIT aspires to be leader in techno-managerial education at national level by making students technologically superior and ethically strong having an enterprising spirit with a global mindset.

Mission of Institute: We are committed to provide wholesome education in Technology and Management to enable aspiring students to utilize their fullest potential and become professionally competent by providing: Well qualified, experienced and professionally trained faculty, State-of-the-art infrastructural facilities and learning environment, conducive environment for research and development, delight to all stakeholders.





Tell us about Artificial Intelligence

Artificial intelligence (AI), sometimes called machine intelligence, is intelligence demonstrated by machines, in contrast to the natural intelligence displayed by humans and other animals. In computer science AI research is defined as the study of "intelligent agents": any device that perceives its environment and takes actions that maximize its chance of successfully achieving its goals. Colloquially, the term "artificial intelligence" is applied when a machine mimics "cognitive" functions that humans associate with other human minds, such as "learning" and "problem solving".

What are the New Developments in Artificial Intelligence?

#### Google Duplex

One of the most impressive moment happened earlier this year when Google showed off Duplex, an AI that can place calls for you like a personal assistant. The idea behind Duplex is that instead of calling people to make an appointment or book a reservation, we use an AI to take care of it all. Google Duplex uses advances in natural conversation technologies to autonomously complete specific user tasks via the phone and Google Assistant. The Google Duplex technology is built to sound natural, to make the conversation experience comfortable. Google says, "Duplex will become part of the Google Assistant experience on Pixel phones later this year, but it's rolling out on a city-by-city basis." The first batch includes New York, Atlanta, Phoenix, and the San Francisco Bay Area. It will launch in more areas later.

# **Duplex**





#### Anki's Vector robot

Vector is the answer to our sci-fi dreams. He's a home robot who's always on, happy to see you, voice-enabled, and eager to help. Vector is the most advanced home robot ever made. He begins to fulfill the promise of living with robots in ways we've only seen in science-fiction movies. He can see, hear, and feel, allowing him to react naturally to the world around him. However, his most remarkable feature is life. Vector feels alive. Anki is pretty vague about what Alexa integration will do, but it could in theory include controlling a raft of smart home devices. Anki has also announced other coming upgrades, including delivering messages, recognizing music, and acting as a homemonitoring device. It's set by software that simulates emotions—happy, sad, bored—in response to his interactions with people and the environment. Vector also has his own low-fi robotic boy voice, which he may lose in Alexa mode.



Vision of Department: To develop the department into full-fledged center of learning in the various fields of Electronics and Telecommunication keeping in views the latest development and making students technologically superior and ethically strong.

Mission of Department: To impact education and training in the field of electronics and telecommunication engineering and its allied areas by developing competencies of the students to meet social and industrial needs.



#### IoT Based Project

#### IEEE Based Project

#### IOT Based paralysis patient Health care system

The IOT based paralysis patient health care system is system designed to help the patient convey various messages to doctor, nurse or his/her loved sitting at home or office over the internet. The system make use of microcontroller based circuitry to achieve functionality. It makes use of hand motion recognition circuit and a receiver plus transmitter circuit.

The hand motion circuit is used to detect the hand movements using accelerometer, gyro and then transmit this information wirelessly over RF to the receiver system. The receiver system is designed to receive and process these commands and display them over the LCD display as well as transmit the data online over to the IOT gecko server. The IOT server then display this information online, to achieve the desired output.

-Abhijit Kolhe

#### Vision-Based Automated Parking System:-

Car parking is a big issue in the present scenario, as the number of car increasing day by day, on the other hand parking space is getting restricted . A great amount of time is wasted in looking for a parking space. This project portrays an approach to conquer these circumstance and managing a parking space by bringing into play a vision based automatic parking system.

The web camera used will provide the information about the space availability & this data will be stored in the PC. The LCD screen will display the information with the help of microcontroller employed.

· Nilesh Wahule

### Android Controlled Juice Vending Machine

In summer, as temperatures is high all the day, people often get thirsty. So during this time juice vending machine play a very important role in people's life. Normal juice machine is manually operated i.e. to operate that machine every time some person must be present over there. So we here proposed an interesting machine named "Android Controlled Juice Vending Machine" in which thirsty person just need to put a coin into machine and which select whichever juice he want with his phone itself. When gets a signal from phone gives the signal to respective pump to start or stop the flow of juice. If glass is not present it should notify via display and buzzer and will not start the flow. It should also detects how much glass is filled if the glass is full the machine should stop the flow automatically.

-Dnyaneshwar Dhore

#### Attendance Monitoring System Using Arduino

This project enables you to automatically capture student's attendance bio-metrically via fingerprint. This project has so many useful applications ranging from attendance monitoring to access control, and ultimately security.

Students just have to register their finger print once and then just scan their fingers to get the attendance recorded. It not only saves the time for teachers to take the attendance but also it does make the student free to work in class and feel free of his attendance which will be marked before entering the class

#### **OBJECTIVES:-**

- 1. Develop a Attendance recording system
- 2. Minimise the time required to take the Attendance manually
- 3. Improve the accuracy of taking Attendance in class
- 4. Eliminate the problem of fake Attendance marked
  - VISHAL CHIB & AVINASH MISHRA



# E-Rêves fvento

#### Departmental Activities



Department has organized Expert Talk on "Leading the Right Carrier Path" on O1st Aug 2018 by Mr. Avinash Chate.





An Induction program has organized on 3rd and 4th August 2018 to give dissemination of outcome based education, information about laboratories of department and information about previous and current activities of department to First year students







A "Two days drive on IEEE Membership and IEEE Xtreme Competition" was organized on 31st Aug 2018 & 01st Sept 2018 by Department in association with IEEE Bombay Section









Department has organized Parent Meet to give dissemination of outcome based education, information about laboratories of department and information about previous and current activities of department to parent on O1st Sept 2018.





Department has Organized a visit to Rucha Engineers Pvt Limited, MIDC, Waluj, Aurangabad for Third Year Students on O1st Sept 2018.





A "Two days Hands on workshop on Arduino" was organized on 6, 7th Sept for first Batch, 12, 14th Sept 2018 for second batch by Department.



An industrial visit to S.S. Controls, MIDC, Waluj, Aurangabad on 08th Sept 2018.



Department has Organized a visit to Tata Communications, Pune on 21th Sept 2018.







Department's Electronic Hobby Club students participated in Science Exhibition at Marathwada Institute of Technology Aurangabad on 29th Sept 2018 under the auidance of the Mr. U.D. Shirale & Mr. R.L. Gaike Sir.





Talento

#### Mother's dairy-(By Snehal Sawrade [SYA])

#### Dear James

You just turned 18 today! I just feel like it was yesterday when you hold my finger with your whole hand and started taking your first steps. All these years you smiled, laughed, cried, jumped, danced, played. I wish I was there to experience all this but destiny decided my way long before to the heaven. Even if I am not with you but my lessons would help you to be a better person. So here's a new story for you whose answer depends on yourself.

Once there was a boy walking down the streets where he saw a poor mam sitting on road whose clothes were toned and dirty. The boy pulled out some money and gave it to him but he refused

And went away. Next day the boy brought a piece of bread and gave it to him but he again refused. Third day the boy asked him," why is he refusing to take?" The mam replied, "I am poor but I might not accept anything which I have not earned by myself". Life gives you the same two choices every time. It is you who has to choose the right between them.

## गांधी

सच की राह सुझाने वाला, सच्चा संत परमात्मा था. झूट के आगे सर ना झुकाये, ऐसा वोह महात्मा था.

शांती का मार्ग अपनाता, शांती दूत कहलाता था. लाठी को कभी ना उठाता, सत्य का जो आग्रही था.

साथ लेता था सबको, बदलाव की वोह आंधी था. भेद जिसके रूह मे नही, नाम उसका गांधी था.

> Mithilesh Gaikwad (B.Tech A)



Yash Patil (B.Tech A)

They stood in front each other.

Both saw into each other's eye.

They looked so similar to the

extent You won't recognize the other eye.

The first one complained hard.

They second didn't even argue.

The first one said you're ugly, I hate you, You're just not good enough though you claim to try. The second one cried okay if you say so. Just don't hate me. I promise to be better next time

There were fumes or anger on her face ..

Which later deluded into an ugly cry

That's when she stopped looking into mirror.

Because todays hate session was over...

----diary of vaibhavi

#### MOSFET can be used as a

- A. Current Controlled Capacitor
- B. Voltage Controlled Capacitor
- C. Current Controlled inductor
- D. Voltage Controlled inductor

# did you know?

Dolphins will talk to one another over the phone and can even recognize each other's voices.

Answer for Previous Question is...

Q. A good Trans-Impedance Amplifier has a

Answer: Low input Impedance and High output Impedance.

Who are the editors and designers of E-Rêves?

My Editors and Designers are...

Editor in Chief: Dr. G. S. Sable

Executive Editors: Mr. U.D. Shirale & Ms. K. R. Khandagle

Magazine Secretary: Yash Patil (B.Tech A) & Sachin Kangane (B.Tech B)

Creative heads: Bhushan Jonwal (B.Tech A)

Nilesh Wahule (TYA)

Snehal Sawrade (SYA)

Associate heads: Dnyaneshwar Dhore (TYA)

Shantikumar Sovitkar (TYB)

Hrishikesh Thombare (TYA)