Quarterly News Bulletin
Volume 8 Issue 02
Shri Vithal Education And Research Institute's
College of Engineering (Polytechnic), Pandharpur
26th January2021
TECH– EXPLORER

NIGHT VISION TECHNOLOGY

This system processes far infrared radiation, which minimizes non-essential information placing a greater emphasis on pedestrian and animal, allows for a range of 300 meters or nearly 1,000 feet, and avoids "dazzle" from headlights, road lights and similar intense light sources. In 2008 vehicles are added with a pedestrian detection system which flashes a caution symbol on navigation / information screen and head up display when it detects a pedestrian. The objective of the pedestrian warning algorithms is to accurately detect pedestrian and provide the driver with informative warning. In eyes of the driver, the end product of the good system provides the timely warning and possibly, additional information such as the position of the pedestrian or an overlaid on the night vision display. *Cont.. on Page no.4..)*

(from page-1..) Enterprise Mobility with the Oracle Mobile Platform

Integrate: Mobile Service Integration- Integration is one of the leading challenges of mobile application development. Many Oracle customers have already addressed this challenge through their use of Oracle Fusion Middleware and service- oriented architecture (SOA). Mobile applications communicate with back-end applications through standard Web services.

Secure: Mobile Identity and Access Management- Oracle Access Management includes mobile access capabilities with support for REST APIs and OAuth. Oracle API Gateway acts as a control point for managing how internal users and applications are exposed to third-party cloud offerings while reducing security risks. You can leverage your existing Identity and Access Management investments by extending authentication, authorization and risk policies to mobile.

Conclusion: The Next Frontier- The next frontier for enterprise computing will see the convergence of the Internet of Things with mobile computing to create the Connected Enterprise. Being able to leverage mobile technology and make it meaningful by finding significant links to multiple, varied sources of is what will lead to promising developments across industry segments. Oracle Mobile Platform, built on Oracle Fusion Middleware technology, will fully support your needs and requirements.

(from page-4..) NIGHT VISION TECHNOLOGY

There are two different technologies in the market for night vision system. Far infrared (FIR) also called passive infrared And Near infrared (NIR) also called active infrared.

What is Night Vision System?

The night vision system provides the driver with the black and white image of the driving environment ahead of the vehicle in the central information display (CID). The night vision is 100% passive system without active infrared illumination. Objects situated ahead of the vehicle are shown in varying degrees of the brightness depending upon the temp of these objects. This enables the driver to detect in good time heat emitting.

(from page-1..) The Blue Eyes Technology

CSU buffers incoming sensor data and provides visualization interface.

The basic idea behind Blue Eyes Technology is to give computer the human power i.e. It uses non-obtrusive sensing method, employing most modern video cameras and microphones to identify the user's actions through the use of imparted sensory abilities

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In this Issue >>>

Message from Principal

I feel very proud that our SVERI's College of Engineering (Polytechnic) has endeavored to come up with this "Tech-Explorer" quarterly news bulletin which explores the hidden potential of our students.

SVERI's Polytechnic is growing day by day and reaching the heights of success with the exceptional performance of our students. Recently, this college has been recognized as the best campus in Maharashtra and Goa.

"Tech-Explorer" is a platform through which our students explore their ideas, thoughts as well as skills. I feel delighted to say that our students have shown excellent performance in recent MSBTE examination as well as in extra-curricular activities.

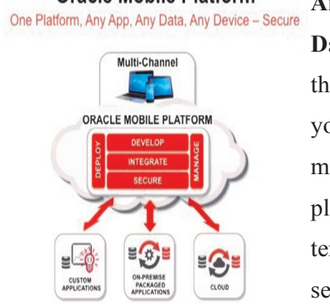
I appreciate the students and faculty members who have taken much efforts to bring this "Tech-Explorer" quarterly news bulletin in existence.

I wish you all Happy Republic Day……!

Enterprise Mobility with the Oracle Mobile Platform

-Ms. Sonali Jadhav(TY-CO)

For many years, corporate IT departments looked to the desktop as the only way to present information from their corporate enterprise applications. But with the advent of mobile computing, applications are no longer tied to the desktop and end users expect to be able to switch between desktop, tablet or smartphone anytime, anywhere. This multi-channel environment has become the new normal.



Oracle Mobile Platform:

Any App, Any Device, Any Data—Secure - This means that the same platform that you use to develop and maintain your enterprise applications can now be extended to develop, integrate, secure, deploy, and manage your mobile applications.

Develop: Mobile Application Framework

Oracle's Mobile Application Framework is a commercial Java and HTML5-based environment for building and extending enterprise-applications. Based on a hybrid mobile architecture, HTML5 provides common, cross-platform interfaces. Java, the world's most popular programming language, is used to develop the application logic.

(Cont.. on Page no.4..)

The Blue Eyes Technology

-Ms. Akanksha Mali (SY-IF)

Imagine yourself in a world where humans interact with computers. You are sitting in front of your personal computer that can listen, talk, or even scream aloud. It has the ability to gather information about you and interact with you through special techniques like facial recognition, speech recognition, etc. It can even understand your emotions at the touch of the mouse. It verifies your identity, feels your presence, and starts interacting with you. You ask the computer to dial

to your friend at his office. It realizes the urgency of the situation through the mouse, dials your friend at his office, and establishes a connection.

Blue Eyes system consists of a mobile measuring device called Data Acquisition Unit (DAU) and a central analytical system called Central System Unit (CSU) interconnected by Bluetooth. DAU collects information from the sensor and sends it over the Bluetooth and delivers the messages sent from CSU to the operator.

(Cont.. on Page no.4..)

EDITORIAL

It gives me great pleasure to present the 8th issue of our College of Engineering (Polytechnic), Pandharpur newsletter "Tech-Explorer", which gives us the opportunity to focus the achievements in our college and new trends in Engineering field. I am thankful to all the students and faculties who have contributed during the preparation of this newsletter. We have tried our best and given positive efforts, expecting creative responses from everyone to continue the flow of knowledge through this quarterly newsletter.

Students' Achievement

- Following Students of Electrical Dept. are selected in MSEDCL, Maharashtra on Junior Engineer post.

Sr. No.	Name of Student
1	Mr. Sawant Rahul H.
2	Mr. Thorat Abaso B.
3	Mr. Nirmale Tanaji A.
4	Mr. Gandule AnilA.
5	Mr. Khot Ramchandra B.
6	Mr. Godase Sanket S.

- Mr. Ashutosh Koli, student of Third Year IT selected in Infosys.

FUTURE OF INDIA IN AI

Mr. Aman Kazi (SY-CO)

According to the report from NASSCOMM, Data and **Artificial Intelligence** (**AI**) could potentially add $450-500 billion to **India's** gross domestic product (GDP) by 2025 & drive **India's** economic growth.

Over the last few years, the world has witnessed a strong upsurge in technology developments, especially in Artificial Intelligence. There is no doubt that the technology has the potential to transform businesses the way it is done earlier. Now, countries are focusing more on leveraging this tech to become and lead the race for AI supremacy across the globe.

In India, there is a huge scope for AI as the country has been a growing hub for business and ranks among the most lucrative investment destinations for technology transactions worldwide. In recent times, the country has focused its interest more on technology, realizing that it is a vital component of economic

development. From enterprises, agriculture, and education to healthcare and transportation, AI can be a transformative technology for the country.

Considering reports, in just two years, AI is tipped to boost the rate of innovation in India by about 230%. In recent times, the country has been focusing on research but is still far from catching up with the world leaders.

According to NITI Aayog's discussion paper on AI "National Strategy for Artificial Intelligence", a national AI strategy needs to be premised on a framework that is adapted to the country's unique requirements and aspirations. Simultaneously, it is capable of accomplishing India's full potential of leveraging AI developments.

From an economic impact perspective, AI has the ability to drive growth through automating multi-layered physical tasks that require adaptability and agility across industries. The focus sectors include Education – preparing next generation to leverage the global AI revolution to India's advantage.

College of Engineering (Polytechnic), Pandharpur

Third Year Branch wise 3 Toppers of Summer-2020 Exam

Name of Student	Percentage
1. Katkamwar Yash (CO)	99.76%
2. Gund Pratiksha (CO)	99.06%
3. Ranpise Priti (CO)	98.94%
1. Ghadage Shyam (ME)	99.33%
1. Patil Jaydeep (ME)	99.33%
2. Jagdale Akshay (ME)	98.78%
3. Khatal Sachin (ME)	98.11%
1. Sayyad Gausiya (IF)	99.73%
2. Bahirat Ajinkya (IF)	98.53%
3. Koli Ashutosh(IF)	98.13%
1. Bhogaonkar Ajay (CE)	99.67%
2. Pimpale Maruti (CE)	99.66%
3. Bodake Sakshi (CE)	98.89%
1. .Gade Rahul (EE)	95.83%
2. Ritapure Vaishnav(EE)	94.94%
3. Kokare Kajal (EE)	94.89%
1. Mujawar Simran (EJ)	95.24%
2. Patil Madhuri (EJ)	95.12%
3.Mhamane Vaishnavi(EJ)	94.94%

Wireless Power Transmission

Mr. S.M.Ghodake (EE)

Unless you are particularly organized and good with tie wrap, you probably have a few dusty power cord tangles around your home. You may have even had to follow one particular cord through the seemingly impossible snarl to the outlet hoping that the plug you pull will be the right one. This is one of the downfalls of electricity. While it can make people's lives easier, it can add a lot of clutter in the process. For these reasons, scientists have tried to develop methods of **wireless power transmission** that could cut the clutter or lead to clean sources of electricity. Researchers have developed several techniques for moving electricity over long distances without wires. Some exist only as theories or prototypes, but others are already in use. This paper provides the techniques used for wireless power transmission.

As a result of the extensive research in WPT, various categories have arisen. WPT can be categorized in terms of efficiency, distance of transmission, power level and size. Classification based on distance of transmission however is more relevant. For any electromagnetic source both electric & magnetic

New Technologies Transforming the Grid Edge

Mr. Kadam P. D.(EE)

The electricity system is in the midst of a transformation, as technology and innovation disrupt traditional models from generation to beyond the meter. Three trends in particular are converging to produce game-changing disruptions: Electrification of large sectors of the economy such as transport and heating Decentralization, spurred by the sharp decrease in costs of distributed energy resources like distributed storage, distributed generation, demand flexibility and energy efficiency Digitalization of both the grid, with smart metering, smart sensors, automation and other digital network technologies, and beyond the meter, with the advent of the Internet of things and a surge of power-consuming connected devices. These three trends act in a virtuous cycle, enabling, amplifying & reinforcing developments beyond their individual contributions. Electrification is critical for long-term carbon reduction goals and will represent an increasingly relevant to share.