

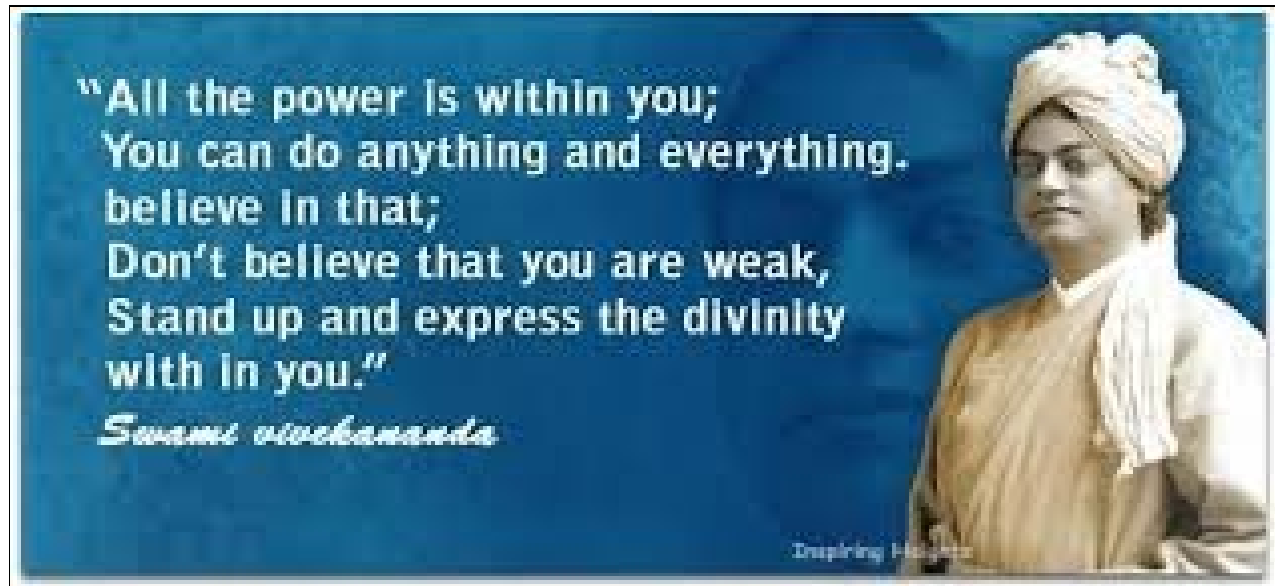


BITS NEWS E-BULLETIN



UNDER CSI

DEPARTMENT OF INFORMATION TECHNOLOGY



IT is the area of managing technology and spans a wide variety of areas that include computer software, information systems, computer hardware, programming languages but are not limited to things such as processes, and data constructs.

IT professionals perform a variety of functions (IT Disciplines/Competencies) that ranges from installing applications to designing complex computer networks and information databases. A few of the duties that IT professionals perform may include data management, networking, engineering computer hardware, database and software design, as well as management and administration of entire systems.

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Engineering

Management

Law

Schools

Other Courses

■ NAGPUR ■ PUNE ■ JALGAON ■ AMRAYATI ■ ALIMPEENAGAR ■ CHHINDWARA

RAISONI
GROUP OF INSTITUTIONS



DEPARTMENT VISION AND MISSION

VISION

To achieve excellent standard of quality education by keeping pace with rapidly changing technologies and to create technical manpower of global standards with capabilities of accepting new challenges in Information Technology.

MISSION

- To equip our graduates with knowledge and expertise to contribute significantly to the knowledge and information industry .
- Promoting collaborative research through special interest groups, research laboratories and Industry Institute Interactions.
- To nurture interpersonal and entrepreneurial skills to provide leadership in the information industries.

PROGRAMME EDUCATIONAL OBJECTIVES

The educational objectives of the Information Technology programme are designed to produce competent engineers who are ready to contribute effectively to the advancement of information technology causes and to accommodate the needs of the profession. The graduates shall:

1. Practice Information Technology in the general disciplines of design, development & deployment of software and integration of existing technologies for e-governance nationwide.
2. Apply fundamental technical knowledge and skills to provide workable solutions to problems in various areas of IT.
3. Pursue higher education, research and development and deploy creative efforts in the area of Information Technology.
4. Use the acquired knowledge in societal and environmental sensitive manner with professional ethics in a team.

PROGRAM SPECIFIC OUTCOME

Graduates shall

PSO1 -Utilize the hands on experience of industry internship leading to take up live problems in IT industries .

PSO2 - Apply core concepts of information technology in android/iOS Application & Product Development.

PSO3 – Demonstrate the skills in Web based technologies and information management.

PROGRAMME OUTCOMES

Engineering Graduates will be able to:

1. **Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2. **Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering

problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

3. **Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

4. **Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

5. **Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

6. **The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

7. **Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

8. **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

9. **Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

10. **Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

11. **Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

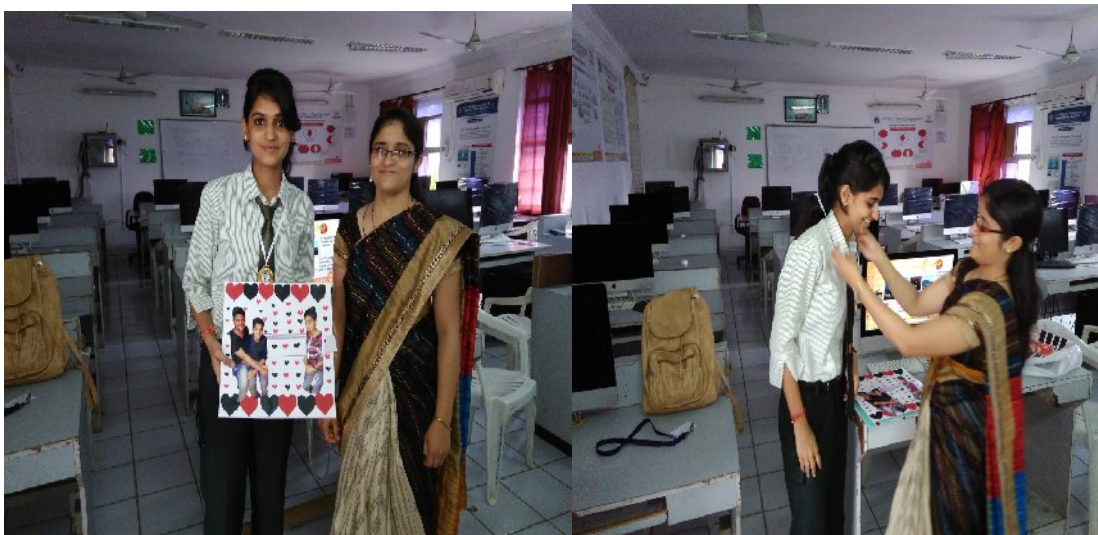
12. **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

“SING THE WORD” EVENT CONDUCTED UNDER BITS ON 12th AUGUST 2017



Department of Information Technology has organized event Sing the word under forum BITS on 12th August 2017. Total 47 groups have participated. The event was successful & coordinated by BITS student committee.

“GREETING MAKING” EVENT CONDUCTED UNDER BITS ON 12th AUGUST 2017



Department of IT has organized Greeting Making Competition under forum BITS on 12th August 2017. Total 29 students have participated. The event was successful & coordinated by BITS student committee. Students have given the theme of independence day & Rakshabandhan for Greeting.

“DUBSMASH” EVENT CONDUCTED UNDER BITS ON 12th AUGUST 2017



Department of IT has organized Dubsmash Competition under forum BITS on 12th August 2017. Total 8 students have participated. The event was successful & coordinated by BITS student committee. Students have submitted creative videos in the event.

AICTE SPONSERED FACULTY DEVELOPMENT PROGRAM ON ICT ORGANIZED BY IITBOMBAY UNDER GHRCE AS REMOTE CENTER ON 19th – 20th AUGUST 2017

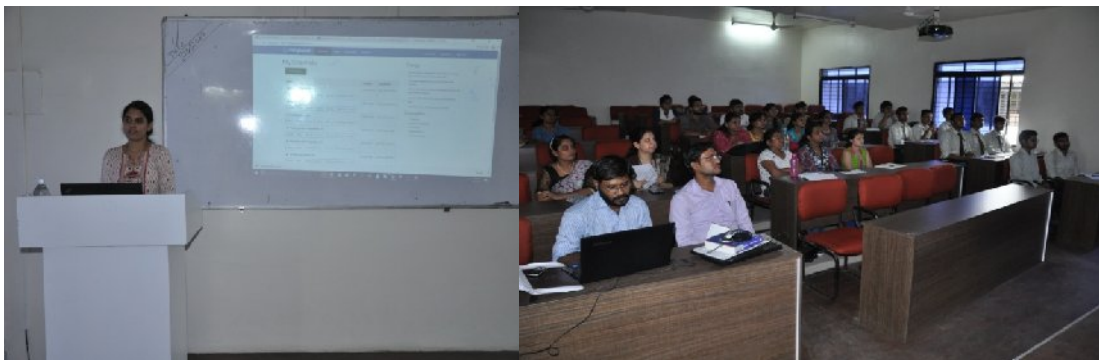




This was first time that IITBombay was organizing back to back 2 Faculty Development Program, sponsored by ACITE under various remote center all over Indian. Phase-I program was on ICT. G.H.Raisoni College of Engineering, Nagpur being one of the remote centers has taken active participation. Participants from Nagpur Engineering / Polytechnic colleges as well as from Amravati, Bhandara have been its part. In total 14 participants have registered & attended the live Interaction through A-View of IITBombay.

FDP Coordinator
Prof. T.H.Khan
IT Department

WORKSHOP ON IOT AND DATA SCIENCE ORGANIZED ON 23rd Aug 2017



Workshop On IOT and Data Science was organized on 23rd Aug 2017 under center of excellence of IOT and Data Science group. The target audience were under graduates, post graduates and PG faculty. The speaker for the workshop was Alka Nair.

Alka Nair is part a of Application Engineering team at MathWorks focusing on technical computing. She has been working with customers to address their challenges using MathWorks products and services. Her areas of interest include Data Analytics, High performance Computing, Image Processing and Computer Vision. She completed her MS in Electrical Engineering from Indian Institute of Technology, Madras specializing in the area of Image Processing and B.Tech from Calicut University. This session gives

an overview on how to get started with IoT technology development using MATLAB. The various aspects of IoT, as depicted in the screenshot above are covered during the talk. Following points were covered during the session: 1] Accessing and aggregating data from edge nodes for algorithm development. 2] Developing online analytics and monitoring of smart devices using ThingSpeak (MathWorks IoT Platform), 3] Performing historical data analysis 4] Deploying analytics to embedded devices to enable smart edge nodes.

ENERGY CONSERVATION BY FOOTSTEPS

Why to waste footsteps when you can conserve the energy produced by it? The mechanical energy produced by us while walking, running and all foot activities can be conserved by using a material called *PIEZOELECTRIC TRANSDUCER*.



Figure 1. PIEZOELECTRIC TRANSDUCER

The word piezoelectricity means electricity resulting from pressure. Piezoelectric transducer is a small device which can convert mechanical energy into electrical energy. We can use it at public places. Piezoelectric transducers are made up of various materials according to their use.

Generating power using these transducers can be beneficial in many ways. The power generated using these transducers can be used for charging mobile phones, lighting up a street light, etc. The power generated using these transducers has large scale as well as small scale applications. We are now in a world where the conventional resources are being wasted and in a situation as such the power generated using the piezoelectric transducer can be used instead. Conventional resources are high budget projects as well as their cost of maintenance is also high. The power generation using piezoelectric transducers is a cost-effective project and can be implemented at any public place like railway stations, college campuses, offices, playgrounds, etc.

The best part of using this device is that it does not need lot many equipment's but just the piezoelectric transducers, diodes, connecting wires and capacitor. Making of this circuit only requires basic knowledge of electronics, so many unskilled people can also be appointed to make this large circuits. It can be even made available on domestic level and can be even used at homes in doormats. It can be fixed on speed

breakers as it works on pressure, the pressure due to heavy vehicles will help to light the street lights which can be environmental friendly and save lots of our non-renewable resources used to generate electricity.

Disadvantage of this project is that more pressure can damage the device which would not at all be affordable as restoring the large circuits would be rather difficult.

Article by,

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