DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

INTERNATIONAL WOMEN'S DAY

The International Women's Day-2021 was celebrated on **8th of March 2021**, Monday at GMIT campus. The program was inaugurated by **watering a flower plant** to uphold the importance of the environment. **Dr. Rajeshwari G Annigeri,** Professor and Head, College of Dental Sciences, Davangere, Karnataka, had graced the occasion as the Chief Guest. The program was presided by **Dr. Y Vijaya Kumar**, Principal, GMIT. The coordinator and members of WEC, all women teaching and non-teaching staff, NSS girl volunteers and first year girl students from various branches joined together for the celebration. The Chief Guest enlightened the girl students of first year about the effects of the social media on today's youth. She also gave suggestions on maintaining a healthy lifestyle. **Mrs. SushmaKatti**, Assistant Professor, Department of Physics, GMIT, put forth the significance of the International Women's Day celebration.

In accordance with the theme for the International Women's Day-2021 being "**CHOOSE TO CHALLENGE**", all the women staff and girl students of GMIT were in **blue color dress** code that symbolizes qualities such as responsibility, intelligence, confidence and power which are the attributes required to face any challenge. **Dr. Y Vijaya Kumar,** Principal, GMIT, concluded the event by giving the presidential remarks by urging that women should give first priority to their health and well-being.

FDP ORGANIZED

ISTE sponsoredThree day Faculty Development Programme (FDP) on **"Understanding Research Methodology and Bibliometrics"** in association with**Manipal School of Information Sciences (MSIS), MAHE, Manipal**was organizedon **18th March to 20th March2021.** The resource persons were**Dr. Nandish S**, Assistant Professor-Senior scale and Research Coordinator of Manipal School of Information Sciences**, Mr. Sreepathy H V**, Assistant Professor of Manipal School of Information Sciences and **Mr. Raghudathesh G P**, Assistant Professor of Manipal School of Information Sciences. This FDP had enhanced the knowledge and skills of the faculty members in the domain of research. Theprogramme's objective was to impart theoretical, methodological, practical and statistical instructions enabling the participants to find and solve the contemporary societal issues and challenges. **Mr. RavitejaBalekai**and **Mr. RajashekarK,** Assistant Professors of E&CE department coordinated the event.

SDP ORGANIZED

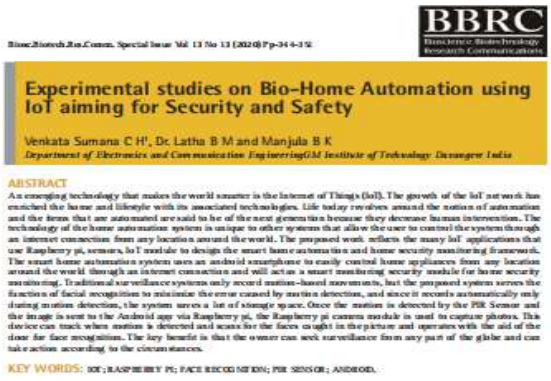
Fig.3 Inaugural function

Fig.4 Session by Resource Person Dr.Nandish S

The department of Electronics and Communication Engineering organized one day SDP on "**Machine Learning and its Applications"** on **17-03-2021.** The resource person was **Dr. Nandish S**, Assistant Professor-Senior scale and Research Coordinator of Manipal School of Information Sciences, Manipal, Karnataka. The objective of the SDP was to introduce the fundamentals of machine learning techniques in real applications of textual and image data. Overall, this training served as a great platform for students to upgrade their knowledge in the area of Machine Learning, Deep learning and its applications. The SDP was coordinated by **Mr. RavitejaBalekai,** Assistant Professor of Electronics and Communication Engineering.

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

PUBLICATIONS



Biosc.Biotech.Res.Comm. Special Issue Vol 13 No 13 (2020) Pp-344-351

BBRC Bioscience Biotechnology Research Communications

Experimental studies on Bio-Home Automation using IoT aiming for Security and Safety

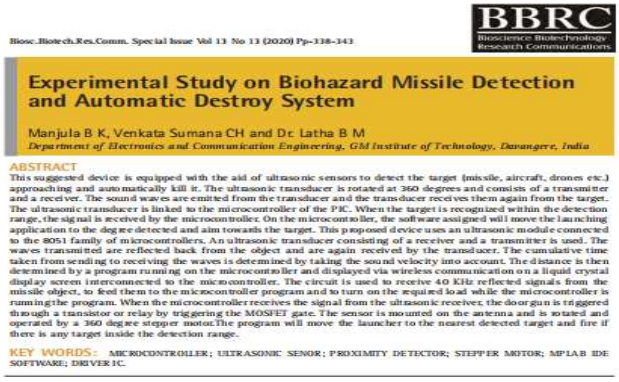
Venkata Sumana C H[1], Dr. Latha B M and Manjula B K

Department of Electronics and Communication EngineeringGM Institute of Technology Davangere India

ABSTRACT

An emerging technology that makes the world smarter is the Internet of Things (IoT). The growth of the IoT network has enriched the home and lifestyle with its associated technologies. Life today revolves around the notion of automation and the items that are automated are said to be of the next generation because they decrease human intervention. The technology of the home automation system is unique to other systems that allow the user to control the system through an internet connection from any location around the world. The proposed work reflects the many IoT applications that use Raspberry pi, sensors, IoT module to design the smart home automation and home security monitoring framework. The smart home automation system uses an android smartphone to easily control home appliances from any location around the world through an internet connection and will act as a smart monitoring security module for home security monitoring. Traditional surveillance systems only record motion-based movements, but the proposed system serves the function of facial recognition to minimize the error caused by motion detection, and since it records automatically only during motion detection, the system saves a lot of storage space. Once the motion is detected by the PIR Sensor and the image is sent to the Android app via Raspberry pi, the Raspberry pi camera module is used to capture photos. This device can track when motion is detected and scans for the faces caught in the picture and operates with the aid of the done for face recognition. The key benefit is that the owner can seek surveillance from any part of the globe and can take action according to the circumstances.

KEY WORDS: IOT; RASPBERRY PI; FACE RECOGNITION; PIR SENSOR; ANDROID.



Biosc.Biotech.Res.Comm. Special Issue Vol 13 No 13 (2020) Pp-338-343

BBRC Bioscience Biotechnology Research Communications

Experimental Study on Biohazard Missile Detection and Automatic Destroy System

Manjula B K, Venkata Sumana CH and Dr. Latha B M

Department of Electronics and Communication Engineering, GM Institute of Technology, Davangere, India

ABSTRACT

This suggested device is equipped with the aid of ultrasonic sensors to detect the target (missile, aircraft, drones etc.) approaching and automatically kill it. The ultrasonic transducer is rotated at 360 degrees and consists of a transmitter and a receiver. The sound waves are emitted from the transducer and the transducer receives them again from the target. The ultrasonic transducer is linked to the microcontroller of the PIC. When the target is recognized within the detection range, the signal is received by the microcontroller. On the microcontoller, the software assigned will move the launching application to the degree detected and aim towards the target. This proposed device uses an ultrasonic module connected to the 8051 family of microcontrollers. An ultrasonic transducer consisting of a receiver and a transmitter is used. The waves transmitted are reflected back from the object and are again received by the transducer. The cumulative time taken from sending to receiving the waves is determined by taking the sound velocity into account. The distance is then determined by a program running on the microcontroller and displayed via wireless communication on a liquid crystal display screen interconnected to the microcontroller. The circuit is used to receive 40 KHz reflected signals from the missile object, to feed them to the microcontroller program and to turn on the required load while the microcontroller is running the program. When the microcontroller receives the signal from the ultrasonic receiver, the door gun is triggered through a transistor or relay by triggering the MOSFET gate. The sensor is mounted on the antenna and is rotated and operated by a 360 degree stepper motor.The program will move the launcher to the nearest detected target and fire if there is any target inside the detection range.

KEY WORDS: MICROCONTROLLER; ULTRASONIC SENOR; PROXIMITY DETECTOR; STEPPER MOTOR; MPLAB IDE SOFTWARE; DRIVER IC.

The department faculties **Mrs. VenkataSumana CH, Dr. Latha BM and Mrs.Manjula BK**have published their papers in the Bioscience Biotechnology Research Communication, Special Issue, Volume 13 No 13 (2020) Pp-344-351, Web of Science Paper,titled **"Experimental studies on Bio-Home Automation using IoT aiming for Security and Safety**".

The department faculties **Mrs.Manjula BK, Mrs. VenkataSumana CH and Dr. Latha BM** havepublished their papers in the Bioscience Biotechnology Research Communication, Special Issue, Volume 13 No 13 (2020) Pp-338-343, Web of Science,titled **"Experimental Study on Biohazard Missile Detection and Automatic Destroy System**".

Details of the students selected for the first round of AICTE LILAVATI AWARDS -2020

SL NO.	Team Members	Title	I Phase Presentation Date	Guide
1	MeghaHiregowdar Anusha B H Manjunatha S A Abhishek G L Mruthyunjaya B M	Legal Awareness	9th March 2021	Dr. Latha B M Dr.Hadimani H C Mrs. Manjula B K Mrs. VenkataSumana CH
2	SrushtiKusagur Virupaksha Gupta H A VarshithaPatil MP Shreya B J Revanth GB	Women Entrepreneurship	13thMarch 2021	Dr. Latha BM Dr.Hadimani H C Mrs. Manjula BK Mrs.VenkataSumana CH

NPTEL MENTOR CERTIFICATE

The department faculty**Mrs.Asha T** had got a certificate of appreciation in recognition of her role as a **mentor** inthe **NPTEL online certification** course **Digital circuits.**


NPTEL
swayam
CERTIFICATE
OF APPRECIATION
is awarded to
ASHA T
GM INSTITUTE OF TECHNOLOGY
DAVANGERE, KARNATAKA
in recognition of his/her role as mentor for the NPTEL Online Certification course
DIGITAL CIRCUITS
Jan - Dec 2020
PROF ANDREW THANGARAJ
NPTEL Coordinator
IIT Madras

Mentees Enrolled	Mentees Present	Score (in %)	Certified (Score in %)				
		<40	40-59	60-74	75-89	>=90	Toppers
7	4	1	2	1	0	0	0

FDPs attended

The department faculties **Dr. Latha BM, Mrs. VenkataSumana CH, Mrs.Manjula BK, Mrs. Asha T, Ms. AkshataChavan, Ms. Nagaveni SA and Mrs. Vinutha LB** have successfully attended AICTE-ISTE approved Orientation/Refresher Programme on "**Accreditation: An Accelerator for Quality Improvement in Engineering Education**" from 18thFebruary to 24thFebruary 2021 organized by the SDM College of Engineering and Technology, Dharwad, Karnataka

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

The department faculties**Mrs**.**VenkataSumana CH, Mrs. Manjula BK, Mr. Rajappa HS, Mr.Harisha GC, Mr. Gururaj E, Mr. Chetan BV, Mrs. Asha T, Mr. VikasYatnalli, Mr. Sampath Kumar B, Ms. Akshatachavanand Mrs. Vinutha LB** have successfully attended ISTE sponsoredthree day Faculty Development Programme (FDP) on **"Understanding Research Methodology and Bibliometrics"** in association with**Manipal School of Information Sciences (MSIS), MAHE, Manipal**on **18th March to 20th March 2021**