#### VELTECH MULTITECH DR.RANGARAJAN DR.SAKUNTHALA ENGINEERING COLLEGE

(ApprovedbyAICTE,AffiliatedtoANNAUNIVERSITY,Chennai,ISO9001:2008CertifiedInstitution, Accredited by NBA & Accredited by NAAC with 'A' grade with CGPA of 3.49) #42,Avadi-VelTechRoad,Avadi,Chennai-600062,Tamilnadu,India.

#### Newsletter (2021-2022) VOL 2

### DEPARTMENT OF BIOMEDICAL ENGINEERING

### ABOUT THE DEPARTMENT

#### VISION

TO ESTABLISH TEACHING AND RESEARCH PLATFORM IN MEDICAL ELECTRONICS FOR THE HEALTH AND WELL BEING OF MANKIND



**1.TO DISSEMINATE FUNDAMENTAL KNOWLEDGE ON MEDICAL ELECTRONICS** FOR PROFESSIONAL DEVELOPMENTS **2.TO PROPAGATE LIFELONG LEARNING 3. TO IMPART THE RIGHT PROPORTION OF KNOWLEDGE, ATTITUDES AND** ETHICS IN STUDENTS TO ENABLE THEM TAKE UP POSITIONS OF RESPONSIBILITY IN THE SOCIETY AND MAKE SIGNIFICANT CONTRIBUTIONS

### PROGRAM EDUCATIONAL OBJECTIVES (PEOS)

PEO 1 TO ENRICH THE STUDENTS TO LIBERATE THEMSELVES IN LEARNING SKILLS INVOLVING

**COMPLEX THOUGHTS, PROBLEM ANALYSIS AND FINDING SOLUTIONS.** 

PEO 2 TO IDENTIFY OPPORTUNITIES AND DEVELOP THE LEVEL OF COMPETENCY IN TECHNICAL AND COMMUNICATION SKILLS TO ESTABLISH THEIR EXCELLENCE IN PROFESSIONALISM

PEO 3 TO IMPLEMENT THE VERSATILE QUALITIES ACQUIRED TO A CHOSEN CAREER, BY

PROVIDING AN IMPACT FOR THE SUSTAINABLE GROWTH AND SUCCESS. PEO 4 TO EXPLORE THEIR IDEAS IN RESEARCH AND PROMOTING THEM TO BE EXCEPTIONALLY GOOD IN MEETING THE CHALLENGES OF INNOVATION AND CREATIVITY

PEO 5 TO HAVE A DIVERSIFIED KNOWLEDGE IN MEDICAL PRACTICES AND INSTRUMENTATION TO RECOGNIZE THE NEEDS OF SOCIETY AND SERVE PEOPLE WITH PROFESSIONAL ETHICS

### **PROGRAMME OUTCOMES**

**POI APPLY ENGINEERING KNOWLEDGE TO THE SOLUTION OF COMPLEX ENGINEERING PROBLEMS.** 

**POZ ANALYZE COMPLEX ENGINEERING PROBLEMS.** 

**PO3 DESIGN & DEVELOPMENT OF SOLUTIONS FOR COMPLEX ENGINEERING PROBLEMS. PO4 USE RESEARCH BASED KNOWLEDGE AND RESEARCH METHODS TO CONDUCT INVESTIGATIONS OF COMPLEX PROBLEMS.** 

PO5 CREATE, SELECT AND APPLY APPROPRIATE TECHNIQUES OF MODERN ENGINEERING AND IT

TOOLS.

**P06 APPLY ENGINEERING KNOWLEDGE TO ASSES SOCITAL, HEALTH, SAFETY, LEGAL AND CULTURAL** 

**ISSUES.** 

P07 UNDERSTAND THE IMPACT OF PROFESSIONAL ENGINEERING SOLUTIONS IN SOCIETAL

ENVIRONMENT FOR SUSTAINABLE DEVELOPMENT.

**P08 APPLY ETHICAL PRINCIPLE AND RESPONSIBILITIES OF THE ENGINEERING PRACTICE.** 

**P09 FUNCTION EFFECTIVELY AS AN INDIVIDUAL AND AS A MEMBER OR LEADER.** 

P010 COMMUNICATE AND WRITE DESIGN DOCUMENTATION AND REPORTS ON COMPLEX ENGINEERING ACTIVITIES EFFECTIVELY.

PO11 UNDERSTAND AND APPLY THE ENGINEERING & MANAGEMENTPRINCIPLES TO MANAGE

PROJECTS IN MULTIDISCIPLINARY ENVIRONMENTS.

PO12 ABILITY TO PREPARE & ENGAGE IN INDEPENDENT AND LIFE-LONG LEARNING IN THE

BROADEST CONTEXT OF TECHNOLOGICAL CHANGE.

### **PROGRAM SPECIFIC OUTCOMES**

PSO1 ABLE TO UNDERSTAND THE MATHEMATICAL AND PHYSICAL FOUNDATIONS OF BIOMEDICAL ENGINEERING AND HOW THESE ARE APPLIED IN THE ANALYSIS OF BIOLOGICAL SYSTEMS FOR BIOMEDICAL INSTRUMENTS AND TECHNOLOGICAL ADVANCEMENT FOR HEALTH CARE. (UNDERSTAND)

PSO2 ABLE TO DESIGN A VARIETY OF ELECTRONIC DEVICES AND SOFTWARE FOR APPLICATIONS INCLUDING BIOMEDICAL INSTRUMENTATION, PHYSIOLOGICAL MEASUREMENT, REHABILITATION ENGINEERING AND MEDICAL IMAGING & INFORMATICS. (DESIGN)

**PSO3 ABLE TO MEET DESIRED NEEDS WITHIN REALISTIC CONSTRAINTS SUCH AS ECONOMIC, ENVIRONMENTAL, SOCIAL, ETHICAL, HEALTH AND SAFETY, MANUFACTURABILITY AND SUSTAINABILITY. (SOCIETY, ENVIRONMENTAL, SUSTAINABILITY)** 



#### ACADEMIC YEAR 2021 – 2022 PUBLISHER - VELTECH MULTITECH

- Dr G. SASI -FACULTY
- Mr. S. VINURAJKUMAR -FACULTY
- Mr. PRABHURAM -STUDENT
- Ms. SHARIKA SREE -STUDENT

### RANK HOLDERS



### DEPARTMENT OF BIOMEDICAL ENGINEERING

NAME : SNEHA.U RANK :15 BATCH :2017-2021

### RANK HOLDERS



### DEPARTMENT OF BIOMEDICAL ENGINEERING

NAME : HARITHA SASIKUMAR RANK :18 BATCH :2017-2021

## EVENT ORGANIZED

### **GUEST LECTURES**

#### SIGNIFICANCE OF IOT IN BIOMEDICAL APPLICATIONS



#### DR.T.DEEPA, ASSOCIATE PROFESSOR GRADE -1, ECE, SRMIST,

#### Entrepreneurship skill , attitude and Behaviour Development



#### DR.KANNNAN, PROFESSOR ,HEAD IQAC , NLP COATCH , NEHRU COLLEGE OF MANAGEMENT , COIMBATORE

## DEPARTMENT HIGHLIGHTS

### **INDUSTRIAL VISIT**

#### SRI NARAYANI HOSPITAL AND RESEARCH INSTITUTE, VELLORE BATCH :2020-2024



DEPARTMENT OF BIOMEDICAL ENGINEERING

FACULTIES: MAHALAKSHMI .N AND KANNAPERUMAL .



#### AARUPADAI VEEDU MEDICAL COLLEGE AND HOSPITAL ( AVMC ), PONDICHERRY



#### DEPARTMENT OF BIOMEDICAL ENGINEERING

FACULTIES: MANISHA .A AND VENKATA SUBBAIAH PUTTA







### 1.KVT HOSPITAL : 5 2.DR.RELA INSTITUTE & MEDICAL CENTRE:5

**3.MMM HOSPITAL:1** 

4.SRMC:4

**5.APOLLO HOSPITAL:4** 

### 1.HYCARE SPECIALITY HOSPITAL : 5

2.MGM HEALTH CARE :4

**3.DEEPAM HOSPITAL:65** 

4.TAMILNADU GOVT MULTISUPER SPECIALITY HOSPITAL:1 5.DR.METHA MULTISPECIALTY HOSPITAL:1

# PLACEMENTS













S.NO	NAME	DEPT	NO OF OFFER	COMPANY
1	Abilash.A	BME	2	WIPRO, ACCENTURE
2	Anjali.D	BME	2	CTS,WIPRO
3	Deepanraj.V	BME	1	Episource
4	Girija.M	BME	1	Musigma
5	Japrish Vishwa.A	BME	1	Musigma
6	Krithik.V	BME	1	Healthwatch
7	Mohanraj.D	BME	1	Episource
8	NIthish Kumar.B	BME	1	Episource
9	Jayasuriya.P	BME	1	Episource
10	Pradeep.A	BME	1	Episource
11	Prince.A	BME	1	CAPGEMINI
12	Rohith.V.S	BME	1	ACCENTURE
13	Santhiya.M	BME	2	CTS,DXC
14	Sophia Mary.V	BME	1	Asahi Technologies
15	Sridevi.V	BME	1	WIPRO
16	Thrishashini.S	BME	1	CTS
17	Vandhana.R	BME	1	Musigma
18	Prabu Ram.B	BME	1	Prayag consultancy
19	Balameena.S	BME	1	CTS
20	Jinola Jermi.J	BME	2	CTS,DXC
21	Kumaragurubaran.T.D	BME	1	Episource
22	Lakshmi Ram.P.S	BME	1	Musigma
23	Giriprasath.D	BME	1	CTS
24	Dhirsa Deva Jenifer.S	BME	2	CTS,DXC
25	Ragupathi.R	BME	1	Episource
26	Vigneshwaran.K	BME	1	Episource
27	Ramasubramaniyam.S	BME	1	Episource
28	Vikram.K	BME	2	Healthwatch, Episource
29	Baruhanudeen.N	BME	1	CTS
<b>30</b> <sup>15</sup>	Nihitha.R	BME	1	DXC
31	Tamilanban Yazhini	BME	2	CTS,DXC

### **PUBLICATION DETAILS**

### DEPARTMENT OF BIOMEDICAL ENGINEERING

Faculty name: Dr.N.Bharathiraaja AUTHORS OF M. A. Elaveini, T. Deepa, PAPER: N. Bharathiraja

**TITLE OF PAPER:** Compressive Sensing of Natural Images with Hybrid Transform based Sensing Matrix,

JOURNAL NAME: IIEEE Conference Publication \_ IEEE Xplore , SBN:979-8-3503-3860-7 Author of<br/>the paper:Vappangi, S.Deepa, T.Mani, V.V.,<br/>Bharathiraja, N.Title of<br/>the paper:On the performance of delta sigma<br/>modulators for DCO-OFDM based<br/>NOMA visible light<br/>communication systems

- Author of N. Bharathiraja, R. B. Indhuja, P.
- **the paper:** R. A. Krishnan, S. Anandhan and S. Hariprasad

Title of<br/>the paper:Real-Time Fall Detection using<br/>ESP32 and AMG8833 ThermalSensor: A Non-Wearable Approach<br/>for Enhanced Safety





FACULTY NAME:

A. MANISHA

**AUTHORS OF THE** PAPER:

A. MANISHA; ARAVIND A PRITHVI RAJ D: VINOTH DARSHAN KUMAR N: MOHAMED SABURAN A

**TITLE OF** THE PAPER:

A REVIEW BASED ON **CLASSIFYING REGULAR** AND MPROPER GASTROINTESTINAL WAVES USING CNN

NAME:

JOURNAL EEE CONFERENCE PUBLICATION \_ IEEE XPLORE JSBN:979-8-3503-9926-4



#### FACULTY NAME: K.NITHYAKALYANI

#### AUTHORS OF THE K.NITHYAKALYANI, PAPER: M.C.JOBIN CHRIST

ZNO QUANTUM DOTS @<br/>NITROGEN AND SULFUR CO-TITLE OF<br/>DOPED POROUS CARBONTHE<br/>PAPER:DETECTION OF LUNG<br/>CANCER BIOMARKERS IN<br/>EXHALED BREATH

JOURNAL MATERIAL SCIENCE IN NAME: SEMICONDUCTOR PROCESSING , ISSN 1369-8001