



MEDFLOWER

ADHIYAMAAN COLLEGE OF ENGINEERING

(AUTONOMOUS)

HOSUR, TAMILNADU

DEPARTMENT OF BIOMEDICAL ENGINEERING

BIANNUAL NEWSLETTER (2019 - 2020)

Volume: 01

Issue: 02



NEWSLETTER

(For Internal Circulation only)



PRINCIPAL'S MESSAGE



I am delighted to announce that the Department of Biomedical Engineering is launching its second issue of the Biannual Newsletter for 2019-2020. The department has organized multiple seminars aimed at enriching students' knowledge in the field of technological advancements within Biomedical Engineering. This Newsletter will showcase the department's activities and accomplishments.

HOD'S MESSAGE

I take great pleasure in warmly welcoming all to the Biomedical Engineering Department, Adhiyamaan College of Engineering, Hosur, Tamil Nadu. Since 2003, the college has been offering a 4-year full-time B.E. program in Biomedical Engineering (BME). I am excited to announce that the Department of Biomedical Engineering is focused on advancing its progress and providing students with hands-on experience. This department is truly unique, acting like a prism that showcases various aspects of education and extracurricular activities, fostering growth and exposure.



VISION

To produce competent and creative Biomedical Engineers who anticipate change, communicate and work with others effectively in a globally connected society.

MISSION

- To pursue excellence in Biomedical Engineering by integrating engineering and medicine through education, research and innovation.
- To facilitate the students by introducing technologies for uplifting the society with global standards.
- To nurture students' skill and leadership qualities by inculcating ethical values.

PEOs

- Our graduates will excel in healthcare sectors and/or higher education with the instilling profound knowledge in mathematical, scientific and engineering concepts.
- Our graduates will be able to analyze healthcare challenges, design and development of diagnostic, therapeutic strategies with global standards, economically feasible for the welfare of society.
- Our graduates will emerge with professionalism, ethical and social responsibilities, communication skills, team spirit and leadership as a holistic personality with life long learning attitude.

S.no	CONTENTS	Page No.
1	Value Added Course	01
2	Events Organized	02
3	Publications	06
4	Achievements	08
5	Academic Toppers	09
6	Placements	11

VALUE ADDED COURSE

A Value Added Course on Certified Research Professional has been arranged for the final year students. **Dr. Padmavathi** is the resource person. She is a Gynecologist practicing in **Deepam Hospitals Chennai** for the past 7 years. She had a good interaction with the students through google meet for a period of 45 days (**06-04-2020 - 21-05-2020**), 49 students participated. Everyday students had one hour session from 3 pm to 4 pm. Through this course they learned the treatment procedure for various ailments and gained knowledge to Handle Biomedical equipment and also to evaluate the clinical data pertaining to a medical device. The modules covered during this course are:

Module 1- Human Anatomy and Physiology

Module 2- Dental equipment

Module 3- Cardiac Assist devices

Module 4- Physiotherapy

Module 5- Neurology

Module 6- Maxillo facial Augmentation

Module 7- Hemodialysis

Module 8- Cutting Instruments

Module 9- Paediatrics

EVENTS ORGANIZED

CONFERENCE

The Department Organized Two days 3rd National Conference on Enhancement in Biomedical Engineering and Health Care(4th & 5th March 2020)

SESSION - I



“ RESEARCH AREA IN BIOMEDICAL ENGINEERING ”

Objective :

- To create awareness about Research thirst in Biomedical Engineering

Dr. M. Vanithamani, the Dean of St. Peter's Medical College, Hospital, and Research Institute, Hosur, focussed on the research aspects of Biomedical Engineering. During her presentation, she emphasized the pivotal role of Biomedical Engineers in analyzing measurements crucial for clinical decision-making. She appreciated that Engineers are continuously exploring innovative methods to process signals through diverse mathematical problems and algorithms. These advanced techniques are revolutionizing various sectors of the healthcare industry, facilitating swift responses and simplifying operations while extracting valuable insights.

Dr. Vanithamani underscored the paramount importance of Biomedical Engineers in core research areas within Engineering Sciences, highlighting how biomedical research integrates principles from the physical sciences into medical applications. The seminar held on March 4, 2020, was attended by 240 internal students and 36 students from other colleges.

Outcome:

- The students acquire knowledge about the significance of Biomedical Research.
- The guidelines were given to the participants about advanced techniques performed in healthcare sector

SESSION -II



“ NEURAL NETWORKS IN BIOMEDICAL APPLICATIONS ”

Objective :

- To attain knowledge about Neural Networks in Biomedical Applications

Dr. K. Muthuvel, Assistant Professor, Department of Electrical and Electronics Engineering, Thuckalay, gave excellent seminar on, 'Neural Networks in Biomedical Applications'. He gave a brief note about Neural Networks and its types such as Artificial Neural Networks (ANN) Convolution Neural Networks (CNN) Recurrent Neural Networks (RNN). He clearly mentioned the applications of neural networks in Medical industry and about artificial neural networks which learn and generalize from data similarly to human reaction. Around 240 internal students and 36 students from other colleges benefited from this session .

Outcome:

- The students acquired knowledge about the significance of artificial neural networks in biomedical Engineering

SESSION -III



“ BIOFILMS – THE HOTBEDS OF ANTIBACTERIAL RESISTANCE ”

Objective:

- To acquire knowledge about Biofilms

Dr. E.S. Challaraj Emmanuel, Assistant Professor, Department of Life Science Centre for PG Studies and Research, delivered seminar on “BIOFILMS – The Hotbeds of Antibacterial Resistance” First he gave a brief introduction about the basics of Biofilms. A biofilm is an assemblage of surface-associated microbial cells that is enclosed in an extracellular polymeric substance matrix. Van Leeuwenhoek, using his simple microscopes, first observed microorganisms on tooth surfaces and can be credited with the discovery of microbial biofilms.

E. coli from contaminated water or food, for example, is resistant to many drug types in regions around the world. But India has the highest rates of resistance to nearly every drug available to treat it. Strains of E. coli tested in labs there were more than 80 percent resistant to three classes of drugs, and treatment options there are increasingly limited, the report found. And MRSA, a dangerous staph infection often contracted in hospitals that does not respond to many antibiotics, is found at high rates in the United States, Romania, Portugal, Vietnam and India – rich, middle- income and poor countries alike.

Finally he concluded with a quote, **“There is a Powerful Driving Force inside Every Human Being that once Unleashed can make any Vision, Dream or Desire a Reality”**. Around 240 internal students and 36 students from other colleges attended the session

Outcome:

- The students acquire knowledge about BIOFILMS – The Hotbeds of Antibacterial Resistance .
- The guidelines were given to the participants about the precautions on bacterial diseases.

PUBLICATIONS

- Archana.S, Published a paper titled “Central Unit for Multi-Patient Medication Register” in International Journal of Scientific Research in Science and Technology, 2020
- Archana.S, Published a paper titled “Wireless Wound Care System” in International Journal of Scientific Research in Science and Technology, 2020
- Archana.S, Published a paper titled “Implementing A Smart Bed System for Patients With Impaired Mobility” in International Journal of Scientific Research in Science and Technology, 2020
- Archana.S, Published a paper titled “Design and Implementation of Prototype Helmet Model to Detect and Monitor Concussion” in International Journal of Scientific Research in Science and Technology, 2020
- Ganesh Babu.P, Published a paper titled “Wireless Monitoring of Heart-Rate And Temperature Using Bluetooth Technology” in International Journal of Scientific Research in Science and Technology, 2020
- Ganesh Babu.P, Published a paper titled “Smart Glove” in International Journal of Scientific Research in Science and Technology, 2020
- Ganesh Babu.P, Published a paper titled “Smart Inhaler System Based on GSM Communication System” in International Journal of Scientific Research in Science and Technology, 2020
- Ganesh Babu.P, Published a paper titled “Wireless Brain Implant” in International Journal of Scientific Research in Science and Technology, 2020

- Krishnammal.V.P, Published a paper titled “Implementing an Emerging Technologies Based E-Saline Bottle Monitoring and Control System” in International Journal of Scientific Research in Science and Technology, 2020
- Krishnammal.V.P, Published a paper titled “Child Diaper Wet Detector Using Wireless System” in International Journal of Scientific Research in Science and Technology, 2020
- Krishnammal.V.P, Published a paper titled “Asthma Assessment by Using Sternocleidomastoid Muscle Contraction” in International Journal of Scientific Research in Science and Technology, 2020
- Sathish Kumar.C, Published a paper titled “Amputation Prevention in Diabetic Patients Using Electronic Orthotics Shoe” in International Journal of Scientific Research in Science and Technology, 2020
- Sathish Kumar.C, Published a paper titled “Hearing Aid with Voice Recognition Alarm System” in International Journal of Scientific Research in Science and Technology, 2020
- Sathish Kumar.C, Published a paper titled “Detection of Sound and Direction of Arrival (DOA) To Assist Deaf And Dumb People By Converting Voice Data Into Text” in International Journal of Scientific Research in Science and Technology, 2020
- Sathish Kumar.C, Published a paper titled “Detection of Dry Eye In Human Using Humidity” in International Journal of Scientific Research in Science and Technology, 2020
- Udhaya Suriya .T. S, Published a paper titled “Automatic Tube Feeding System” in International Journal of Scientific Research in Science and Technology, 2020

- Udhaya Suriya .T. S, Published a paper titled “Alcohol Consumption and Drowsiness Detection” in International Journal of Scientific Research in Science and Technology, 2020
- Udhaya Suriya .T. S, Published a paper titled “Smart Incubator System for Baby Growth Monitoring” in International Journal of Scientific Research in Science and Technology, 2020

ACHIEVEMENTS

- **Shruthi R** ,won 1st prize in paper presentation on the topic of “Bionic contact lens” at 3rd National Conference on Current & Emerging Process Technologies (concept 2020) on 25th january 2020 at KONGU ENGINEERING COLLEGE (Autonomous) , Erode

STUDENTS PARTICIPATION

- **VEDHAVALLI K** participated in paper presentation on the topic of “Ingestible Sensor” at 3rd National Conference on Current & Emerging Process Technologies (concept 2020) on 25th january 2020 at KONGU ENGINEERING COLLEGE (Autonomous) , Erode
- **AAKASH K** Participated in an awareness Quiz in “Anti - Tobacco Day” on 31 May 2020, Organized by National Service Scheme - Kamaraj College , Thoothukudi

SEMSTER II

ACADEMIC TOPPERS



LYDIA M
10 GPA



SARANYA V
10 GPA



VEMALA M
9.89 GPA



MAMTHA M
9.86 GPA



SOWMIYA P
9.68 GPA

SEMSTER IV



AKASH S
10 GPA



KANIKA S
10 GPA



ISIKA ADAK
9.86 GPA



POOJA C
9.86 GPA



KARTHIK B
9.73 GPA

SEMSTER VI



PREMA N
10 GPA



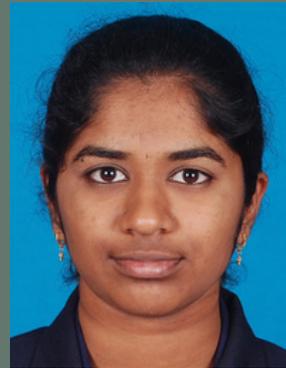
SINDHU G
10 GPA



SHONIYA KAVI S
9.88 GPA



SUSMITA P
9.92 GPA



ROHINI R
9.92 GPA

SEMSTER VIII



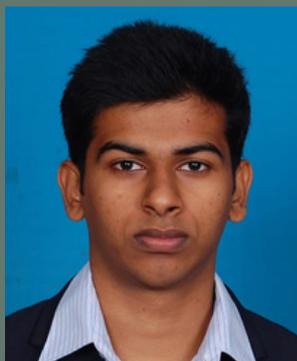
NISHA D
9.82 GPA



NIVETHA RAMALAKSHMI
9.65 GPA



DEVA PRIYA D
9.65 GPA



ELDHO ALIAS
9.65 GPA



KAVITHA VAISJHNAV J
9.47 GPA

Placements



EPI SOURCE

- AARTHI M
- AJISHA J K
- ANBARASAN T
- ASHA A K
- CHANDRU M
- DAISY PRIYA A
- HEMALATHA V
- KOWSHIKA G
- MOHAMED FAISAL C T

- NAGAMONICKAA A
- NISHA D
- PRADEEPA P
- PRAVEENKUMAR
- RAGUL M
- SHALINI J
- SRI VIDHYA G
- UMAMAHESHWARI R
- YOGESHWARI G R



- ABISHEK B
- DEVAPRIYA D
- KAVIYA V



- HANISHKUMAR K
- SREELAKSHMI K



- ANUSUYA E
- MOUNIKA C
- RAGADHARSHINI M



TATA ELXSI

- JOSHUA W



- MANIKANDAN S
- VINITHA G



VISIONARY RCM[®]

- VIGNESHWARI S



• KAMATCHINATHAN P

**TECH
mahindra**

• LAKSHMIPRIYA S



• KAVITHA VAISHNAV J



• ARUNKUMAR M



• KALAISELVAN K

Adecco

• GAYATHRI R



GDS BPM, AZHAKAMPARAI B.O

• RATHNA DEVI M



GDS BPM, MARADANAPALLI B.O

• INDIRA PRIYADHARHINI V



SHREE IMAGING TECHNOLOGIES PVT.LTD

• MIDHUN C



SALIENT FEATURES

- 1) Well-Equipped Laboratories with AICTE Funding.
- 2) Experienced Faculties.
- 3) Outcome Based Education (OBE) is Implemented.
- 4) MoUs with renowned Industries and Hospitals.
- 5) Practical Oriented Teaching and Learning .
- 6) Training for Placement and Higher studies.
- 7) Excellent record of Placement and Higher studies.
- 8) Industry attachment Program and Internship.
- 9) Hospital Training has been carried out in Academics.
- 10) Workshops/Seminars by Industry Experts.
- 11) Financial support for Students Innovation.

EDITORS :

Dr. N. Bagyalakshmi, Associate Professor
Mrs. T. Selva Sherin, Assistant Professor