(An Autonomous Institution Affiliated to Anna University, Chennai)

### DEPARTMENT OF BIOMEDICAL ENGINEERING

## **Board of Studies in Biomedical Engineering**

Minutes of the 26<sup>th</sup> Meeting of the Board of Studies in Biomedical Engineering held on 28.07.2022 at 11:00 am (Online mode).

### **MEMBERS PRESENT**

- 1. Dr.T.S.Udhaya Suriya, Chairman, BOS/ Biomedical Engineering
- 2. Dr. V.P. Krishnammal, Member, BOS/ Biomedical Engineering
- 3. Dr. N.Bagyalakshmi, Member, BOS/ Biomedical Engineering
- 4. Prof.P.Ganesh Babu, Member, BOS/ Biomedical Engineering
- 5. Prof.C.Sathish Kumar, Member, BOS/ Biomedical Engineering
- 6. Dr.B.Padmapriya, Member, University Nominee
- 7. Dr.A.Kavitha, Member, Academic Council Nominee
- 8. Dr.N.Sriraam, Member, Academic Council Nominee
- 9. Mr.Rodda Koteeswara, Member, Industrial Expert
- 10. Mr. J. Hariraman, Member, Representative from Alumni
- 11. Dr.S.Sumathi, HOD/ECE/ACE, Inter Disciplinary Expert
- 12. Dr. V. Manivasagan, HOD/Bio Tech/ACE, Inter Disciplinary Expert
- To consider the minutes of the Twenty fifth meeting of the Board of Studies in Biomedical Engineering held on 23.10.2021.
  - **RESOLVED** that the minutes of the Twenty fifth meeting of the Board of Studies in Biomedical Engineering have been considered.
- To consider the syllabi of 7<sup>th</sup> semester of B.E (Biomedical Engineering) under **Regulation 2018 (CBCS)** for the batch of students admitted in 2019-20.

**RESOLVED** that the syllabi of 7<sup>th</sup> semester of B.E (Biomedical Engineering) under **Regulation 2018 (CBCS)** for the batch of students admitted in 2019-20 be approved (**Annexure – I**).

- To consider the syllabi of 5<sup>th</sup> semester of B.E (Biomedical Engineering) under **Regulation 2018 (CBCS)** for the batch of students admitted in 2020-21. **RESOLVED** that the syllabi of 5<sup>th</sup> semester of B.E (Biomedical Engineering) under **Regulation 2018 (CBCS)** for the batch of students admitted in 2020-21 be approved (**Annexure-II**).
- To consider the syllabi of 3<sup>rd</sup> semester of B.E (Biomedical Engineering) under **Regulation 2018 (CBCS)** for the batch of students admitted in 2021-22. **RESOLVED** that the syllabi of 3<sup>rd</sup> semester of B.E (Biomedical Engineering) under **Regulation 2018 (CBCS)** for the batch of students admitted in 2021-22 be approved (**Annexure-III**).
- To consider the Continuous Assessment (Internal) and End Semester Assessment (External) Marks ratio under Regulation 2022 (CBCS).

  RESOLVED that the Continuous Assessment (Internal) and End Semester Assessment (External) Marks ratio under Regulation 2022 (CBCS) (Annexure-IV)
- To consider the panel of examiners for the evaluation process.

  RESOLVED that the panel of examiners for the evaluation process be approved

  (Annexure-V).

Date: 28.07.2022

Chairman

(An Autonomous Institution Affiliated to Anna University, Chennai)

## DEPARTMENT OF BIOMEDICAL ENGINEERING

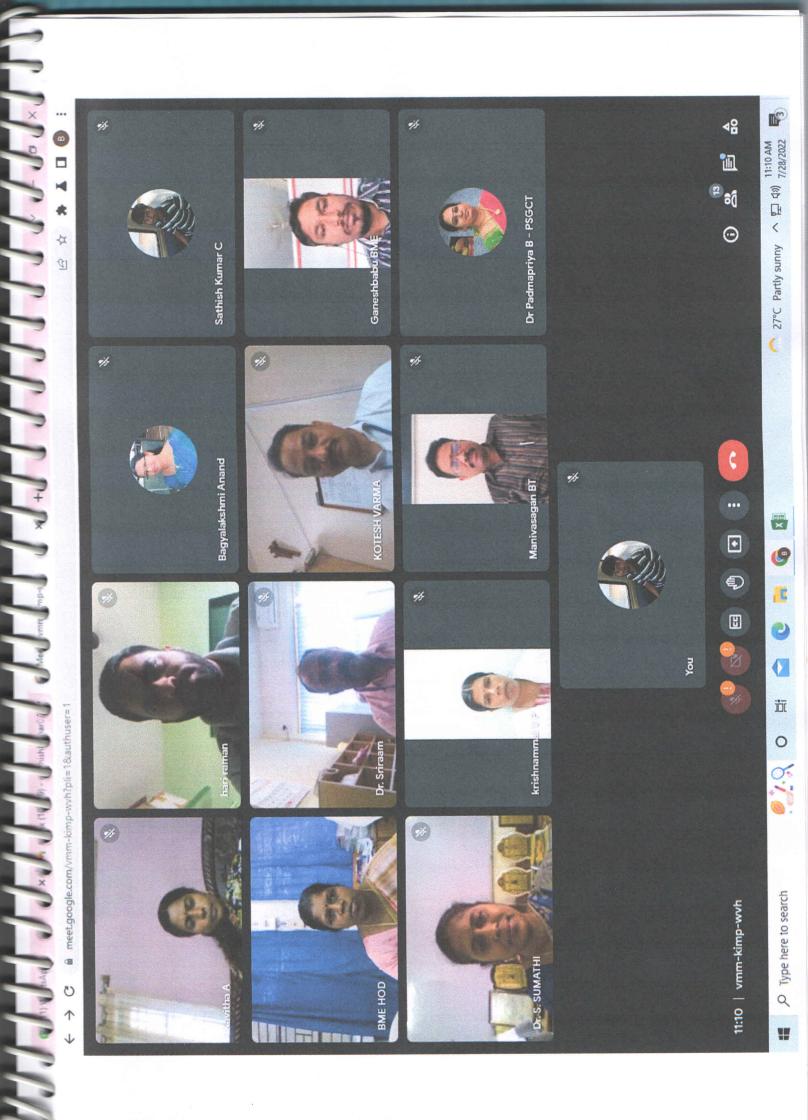
26<sup>th</sup> Board of Studies meeting in Biomedical Engineering (UG)

Held on 28.07.2022 at 11:00 a.m (Online mode).

S. No.	Name	Address	Designation	Attendance
1	Dr.T.S.Udhaya Suriya	Prof & Head, Department of BME, Adhiyamaan College of Engg. Hosur	Chairman	Say
2	Dr.V.P.Krishnammal	Associate Professor, Department of BME, Adhiyamaan College of Engg. Hosur	Member	1.b. tryp
3	Dr. N.Bagyalakshmi	Associate Professor, Department of BME, Adhiyamaan college of Engg. Hosur	Member (	AIR
4	Prof.P.Ganesh Babu	Assistant Professor, Department of BME, Adhiyamaan College of Engg. Hosur	Member	RAVI
5	Prof.C.Sathish Kumar	Assistant Professor, Department of BME, Adhiyamaan college of Engg. Hosur	Member	Die
6	Dr.B.Padmapriya	Associate Professor Department of Biomedical Engineering PSG College of Technology Peelamedu, Coimbatore- 641004 Ph:9443883109 bpp.bme@psgtech.ac.in	University Nominee	Online
7	Dr.A.Kavitha	Professor & Head, Dept of Biomedical Engineering SSN College of Engineering, Chennai, Tamilnadu. 04427469700 kavithaa@ssn.edu.in	Member Nominated by Academic Council	Online

8	Dr.N.Sriraam	Professor & Head, Department of Medical Electronics, M.S.Ramaiah Institute of Technology, Bangalore, Karnataka Ph: 09632294999 sriraam@msrit.edu	Member Nominated by Academic Council	Online
9	Mr.Rodda Koteswara	HOD Biomedical Department, St.John's Medical College Hospital, Bangalore-560034	Industrial Expert	Online
10	Mr. J. Hariraman, B.E.,	Territory Manager Fisher and Paykel Healthcare Company Coimbatore Ph: 9597299911 Hariraman.jeyaprakash@fp hcare.in	Representative from Alumni	Online
11	Dr.S.Sumathi	Professor & Head Department of Electronics & Communication Engineering Adhiyamaan College of Engineering Hosur.	Inter Disciplinary Expert	8
12	Dr. V. Manivasagan	Professor & Head Department of Biotechnology Adhiyamaan College of Engineering, Hosur Ph:9865373358 hod_bt@adhiyamaan.ac.in	Inter Disciplinary Expert	1 1 12 m

Chairman



(An Autonomous Institution Affiliated to Anna University, Chennai)

### DEPARTMENT OF BIOMEDICAL ENGINEERING

## **Board of Studies in Biomedical Engineering**

Minutes of the 25<sup>th</sup> Meeting of the Board of Studies in Biomedical Engineering held on 23.10.2021 at 10:00 am (Online mode).

- 1. Dr.T.S.Udhaya Suriya, Chairman, BOS/ Biomedical Engineering
- 2. Dr.V.P.Krishnammal, Member, BOS/ Biomedical Engineering
- 3. Dr. N.Bagyalakshmi, Member, BOS/ Biomedical Engineering
- 4. Prof.P.Ganesh Babu, Member, BOS/ Biomedical Engineering
- 5. Prof.C.Sathish Kumar, Member, BOS/ Biomedical Engineering
- 6. Dr.B.Padmapriya, Member, University Nominee
- 7. Dr.A.Kavitha, Member, Academic Council Nominee
- 8. Dr.N.Sriraam, Member, Academic Council Nominee
- 9. Mr.Rodda Koteeswara, Member, Industrial Expert
- 10. Mr. J. Hariraman, Member, Representative from Alumni
- 11. Dr.S.Sumathi, HOD/ECE/ACE, Inter Disciplinary Expert
- 12. Dr. V. Manivasagan, HOD/Bio Tech/ACE, Inter Disciplinary Expert
- To consider the minutes of the Twenty fourth meeting of the Board of Studies in Biomedical Engineering held on 30.03.2021.
  - **RESOLVED** that the minutes of the Twenty fourth meeting of the Board of Studies in Biomedical Engineering have been considered.
- To consider the syllabi of 8<sup>th</sup> semester of B.E (Biomedical Engineering) under **Regulation 2018 (CBCS)** for the batch of students admitted in 2018-19.
  - **RESOLVED** that the syllabi of 8<sup>th</sup> semester of B.E (Biomedical Engineering) under **Regulation 2018 (CBCS)** for the batch of students admitted in 2018-19 be approved (**Annexure I**).

To consider the syllabi of 6<sup>th</sup> semester of B.E (Biomedical Engineering) under **Regulation 2018 (CBCS)** for the batch of students admitted in 2019-20.

**RESOLVED** that the syllabi of 6<sup>th</sup> semester of B.E (Biomedical Engineering) under **Regulation 2018 (CBCS)** for the batch of students admitted in 2019-20 be approved (**Annexure-II**).

To consider the syllabi of 4<sup>th</sup> semester of B.E (Biomedical Engineering) under **Regulation 2018 (CBCS)** for the batch of students admitted in 2020-21.

**RESOLVED** that the syllabi of 4<sup>th</sup> semester of B.E (Biomedical Engineering) under **Regulation 2018 (CBCS)** for the batch of students admitted in 2020-21 be approved (**Annexure-III**).

25.5 To consider the panel of examiners for the evaluation process.

**RESOLVED** that the panel of examiners for the evaluation process be approved (Annexure-IV).

Date: 23.10.2021

Department of Biomedical Engineering-25th BoS Recommendations					
Course Code	Name of the course	rse Remarks			
		(New course introduced/Contents			
		incorporated in the corresponding			
		course)			
	2021-2022				
	HOODERAL	The following topics have been			
		included in the existing syllabus			
818BMT01					
	MANAGEMENT	Unit I-Medical Ethics, Legal issues in			
		hospital management			
		The following topics have been			
		included in the existing syllabus			
818BME04	ASSIST DEVICES	Unit I- Pulmonary assist device			
		Unit II- Peritoneal dialysis,			
		, Continuous Renal Replacement			
		Therapy (CRRT)			
		Unit V-Brain Computer Interface			
		The syllabus has been framed with			
		the following unit modules			
	INTERNET OF THINGS	Unit I – Fundamentals of IoT			
\$18BMF06	Committee of the commit	Unit II – IoT protocols			
OTODIVILOO		Unit III – Design and Development Unit IV – Internet of Medical Things			
	APPLICATION	(IOMT)			
		Unit V – IoT in Smart Healthcare			
		System System			
		System			
		The following topics have been			
	<b>A</b> DVANCED	included in the existing syllabus			
818BME07	MEDICAL				
	INSTRUMENTATION	Unit-V - Smart phone based ECG			
		monitoring system, Cloud computing			
	818BME04 818BME04	TOURSE CODE  Name of the course  2021-2022  HOSPITAL  ENGINEERING AND  MANAGEMENT  818BME04  ASSIST DEVICES  INTERNET OF THINGS IN MEDICAL APPLICATION  ADVANCED MEDICAL  MEDICAL  MEDICAL			

Feedback obtained about Curriculum and Syllabus from Stakeholders (Faculty, Student, Alumni, Employers) were also discussed and concluded

(An Autonomous Institution Affiliated to Anna University, Chennai)

## DEPARTMENT OF BIOMEDICAL ENGINEERING

25<sup>th</sup> Board of Studies meeting in Biomedical Engineering (UG) Held on 23.10.2021 at 10:00 a.m (Online mode).

WEWIBERS I RESERVE				
S. No.	Name	Address	Designation	Attendance
1	Dr.T.S.Udhaya Suriya	Prof & Head, Department of BME, Adhiyamaan College of Engg. Hosur	Chairman	Sur
2	Dr.V.P.Krishnammal	Associate Professor, Department of BME, Adhiyamaan College of Engg. Hosur	Member	Online
3	Dr. N.Bagyalakshmi	Associate Professor, Department of BME, Adhiyamaan college of Engg. Hosur	Member	4 Contraction of the second
4	Prof.P.Ganesh Babu	Assistant Professor, Department of BME, Adhiyamaan College of Engg. Hosur	Member	p. y
5	Prof.C.Sathish Kumar	Assistant Professor, Department of BME, Adhiyamaan college of Engg. Hosur	Member	
6	Dr.B.Padmapriya	Associate Professor Department of Biomedical Engineering PSG College of Technology Peelamedu, Coimbatore- 641004 Ph:9443883109 bpp.bme@psgtech.ac.in	University Nominee	Online
7	Dr.A.Kavitha	Professor & Head, Dept of Biomedical Engineering SSN College of Engineering, Chennai, Tamilnadu. 04427469700 kavithaa@ssn.edu.in	Member Nominated by Academic Council	Online

8	Dr.N.Sriraam	Electronics, M.S.Ramaiah Institute of Technology, Bangalore, Karnataka Ph: 09632294999 sriraam@msrit.edu	Member Nominated by Academic Council	Online
9	Mr.Rodda Koteswara	HOD Biomedical Department, St.John's Medical College Hospital, Bangalore-560034	Industrial Expert	Online
10	Mr. J. Hariraman, B.E.,	Territory Manager Fisher and Paykel Healthcare Company Coimbatore Ph: 9597299911 Hariraman.jeyaprakash@fp hcare.in	Representative from Alumni	Online
11	Dr.S.Sumathi	Professor & Head Department of Electronics & Communication Engineering Adhiyamaan College of Engineering Hosur.	Inter Disciplinary Expert	Jour
12	Dr. V. Manivasagan	Professor & Head Department of Biotechnology Adhiyamaan College of Engineering, Hosur Ph:9865373358 hod_bt@adhiyamaan.ac.in	Inter Disciplinary Expert	online

Chairman

(An Autonomous Institution Affiliated to Anna University, Chennai)

### DEPARTMENT OF BIOMEDICAL ENGINEERING

## **Board of Studies in Biomedical Engineering**

Minutes of the 24th Meeting of the Board of Studies in Biomedical Engineering held on 30.03.2021 at 11:00 a.m (Online mode).

#### **MEMBERS PRESENT**

- 1. Dr.T.S.Udhaya Suriya, Chairman, BOS/ Biomedical Engineering
- 2. Dr.V.P.Krishnammal, Member, BOS/ Biomedical Engineering
- 3. Dr. N.Bagyalakshmi, Member, BOS/ Biomedical Engineering
- 4. Prof.P.Ganesh Babu, Member, BOS/ Biomedical Engineering
- 5. Prof.C.Sathish Kumar, Member, BOS/ Biomedical Engineering
- 6. Dr.B.Padmapriya, Member, University Nominee
- 7. Dr.A.Kavitha, Member, Academic Council Nominee
- 8. Dr.N.Sriraam, Member, Academic Council Nominee
- 9. Mr.Rodda Koteeswara, Member, Industrial Expert
- 10. Mr. J. Hariraman, Member, Representative from Alumni
- 11. Dr.S.Sumathi, HOD/ECE/ACE, Inter Disciplinary Expert
- 12. Dr.N.G. Ramesh Babu, HOD/Bio Tech/ACE, Inter Disciplinary Expert
- To consider the minutes of the Twenty third meeting of the Board of Studies in Biomedical Engineering held on 17.10.2020.
  - **RESOLVED** that the minutes of the Twenty third meeting of the Board of Studies in Biomedical Engineering have been considered.
- To consider the syllabi of 7<sup>th</sup> semester of B.E (Biomedical Engineering) under **Regulation 2018 (CBCS)** for the batch of students admitted in 2018-19.

**RESOLVED** that the syllabi of 7<sup>th</sup> semester of B.E (Biomedical Engineering) under **Regulation 2018 (CBCS)** for the batch of students admitted in 2018-19 be approved (**Annexure – I**).

To consider the syllabi of 5<sup>th</sup> semester of B.E (Biomedical Engineering) under **Regulation 2018 (CBCS)** for the batch of students admitted in 2019-20.

**RESOLVED** that the syllabi of 5<sup>th</sup> semester of B.E (Biomedical Engineering) under **Regulation 2018 (CBCS)** for the batch of students admitted in 2019-20 be approved (**Annexure-II**).

To consider the syllabi of 3<sup>rd</sup> semester of B.E (Biomedical Engineering) under **Regulation 2018 (CBCS)** for the batch of students admitted in 2020-21.

**RESOLVED** that the syllabi of 3<sup>rd</sup> semester of B.E (Biomedical Engineering) under **Regulation 2018 (CBCS)** for the batch of students admitted in 2020-21 be approved (**Annexure-III**).

24.5 To consider the panel of examiners for the evaluation process.

**RESOLVED** that the panel of examiners for the evaluation process be approved (Annexure-IV).

Date: 30.03.2021

	Department of	Biomedical Engineering-2	4 <sup>th</sup> BoS Recommendations
Sém	Course Code	Name of the course	Remarks (New course introduced/Contents incorporated in the corresponding course)
		2020-2021	
			The following topics have been included
VII	718BMT01	MEDICAL OPTICS	Single channel and multichannel
			detectors-Unit II Holmium LaserUnit III
			The following topics have been included
		DIOMEGIA NICO	Stress strain analysis - Unit I
VII	718BMT03	BIOMECHANICS	Gait Analysis-abnormal gait-
			corrective measures- Unit IV Ortho implants-types and
			Ortho implants-types and applications- Unit V
			The following topics have been
			included
			Standards- HL7, JCAHO, JCIA
			Unit II
		MEDICAL	Picture Achieving and
VII	718BMT04	INFORMATICS	Communication System (PACs)
			Electronic health record (EHR)
			Unit IV
			Smart medical homes, Personalize
			e-Health Services – Unit V
			The syllabus has been framed wit
			the following unit modules
			UNIT I-General components and
		BIOSENSORS AND	working principles of biosensors
VII	718BME05	TRANSDUCERS	Unit II-Micromachining for Biosensors
		TIG IT TO DO CEIRO	And Bio sensing Systems
			Unit III-Classification of Biosensors Unit IV-Applications of Biosensors
			Unit V-Applications of Biosensors Unit V-Physico-Chemical
			Transducers
			The following topics have been
			included
			Embedded medical application
		EMBEDDED	Ophthalmology - Glaucon
VII	718BME07	SYSTEMS	screening device, Medical Imagin
* **		DIDIDAG	Acquisition User Interfac
			acquisition and implementation
			biopotential, Drug delivery system
			Patient monitoring Systems- Unit V
		DELLA DIL PATION	The following topics have been
	710014509	REHABILITATION	included
VII	718BME08	ENGINEERING	Introduction to virtual reality, Virtu
			reality based rehabilitation, Ha

VII	718BME09	ICU AND OPERATION THEATRE EQUIPMENTS	motor recovery systems with Phantom haptics, Robotics and Virtual Reality Applications in Mobility Rehabilitation - Unit IV  The following topics have been included in the existing syllabus Syringe pump - Unit I  Peritoneal Dialysis, High flow Cannula Therapy - Unit II
VII	718BME10	HOSPITAL WASTE MANAGEMENT	Scavenging system – Unit III  The syllabus has been framed with the following unit modules Unit I - Healthcare Hazard Control and Understanding Accidents Unit II - Biomedical Waste Management Unit III - Hazardous Materials Unit IV - Facility Safety Unit V - Infection Control, Prevention and Patient Safety
VII	718BME11	INTELLECTUAL PROPERTY RIGHTS	The syllabus has been framed with the following unit modules Unit I – Introduction Unit II – Registration of IPRs Unit III – International agreements Unit IV – Indian legislations towards IPR Unit V – Enforcement of IPRs
VII	718BMP09	INTERPERSONAL SKILLS/ LISTENING AND SPEAKING	Newly introduced course helps the students to improve their interpersonal skills/listening and speaking. This course is focuses on employability

Feedback obtained about Curriculum and Syllabus from Stakeholders (Faculty, Student, Alumni, Employers) were also discussed and concluded

Lu

(An Autonomous Institution Affiliated to Anna University, Chennai)

## DEPARTMENT OF BIOMEDICAL ENGINEERING

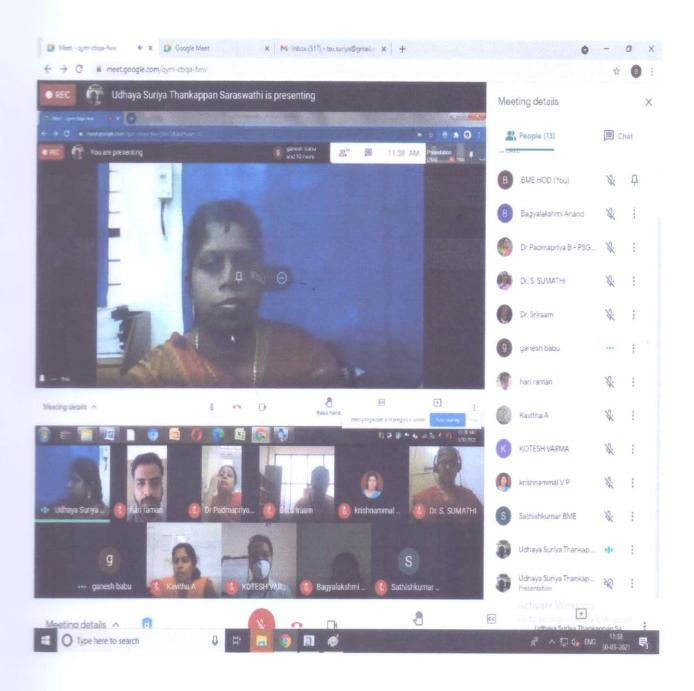
24<sup>th</sup> Board of Studies meeting in Biomedical Engineering (UG)

Held on 30.03.2021 at 11:00 a.m (Online mode).

S. No.	Name	Address	Designation	Attendance
1	Dr.T.S.Udhaya Suriya	Prof & Head, Department of BME, Adhiyamaan College of Engg. Hosur	Chairman	Present
2	Dr.V.P.Krishnammal	Associate Professor, Department of BME, Adhiyamaan College of Engg. Hosur	Member	Present
3	Dr. N.Bagyalakshmi	Associate Professor, Department of BME, Adhiyamaan college of Engg. Hosur	Member	Present
4	Prof.P.Ganesh Babu	Assistant Professor, Department of BME, Adhiyamaan College of Engg. Hosur	Member	Present
5	Prof.C.Sathish Kumar	Assistant Professor, Department of BME, Adhiyamaan college of Engg. Hosur	Member	Present
6	Dr.B.Padmapriya	Associate Professor Department of Biomedical Engineering PSG College of Technology Peelamedu, Coimbatore- 641004 Ph:9443883109 bpp.bme@psgtech.ac.in	University Nominee	Present
7	Dr.A.Kavitha	Professor & Head, Dept of Biomedical Engineering SSN College of Engineering, Chennai, Tamilnadu. 04427469700 kavithaa@ssn.edu.in	Member Nominated by Academic Council	Present

9	Mr.Rodda Koteswara	HOD Biomedical Department, St.John's Medical College Hospital, Bangalore-560034	Industrial Expert	Present
10	Mr. J. Hariraman, B.E.,	Territory Manager Fisher and Paykel Healthcare Company Coimbatore Ph: 9597299911 Hariraman.jeyaprakash@fp hcare.in	Representative from Alumni	Present
11	Dr.S.Sumathi	Professor & Head Department of Electronics & Communication Engineering Adhiyamaan College of Engineering Hosur.	Inter Disciplinary Expert	Present
12	Dr.N.G. Ramesh Babu	Professor & Head Department of Biotechnology Adhiyamaan College of Engineering, Hosur Ph:9845697770 hod_bt@adhiyamaan.ac.in	Inter Disciplinary Expert	Present

# 24<sup>th</sup> BoS meeting held on 30.03.2021 Photograph:



(An Autonomous Institution Affiliated to Anna University, Chennai)

### DEPARTMENT OF BIOMEDICAL ENGINEERING

## **Board of Studies in Biomedical Engineering**

Minutes of the 23<sup>rd</sup> Meeting of the Board of Studies in Biomedical Engineering held on 17.10.2020 at 11:00 a.m.

- 1. Dr.T.S.Udhaya Suriya, Chairman, BOS/ Biomedical Engineering
- 2. Dr.V.P.Krishnammal, Member, BOS/ Biomedical Engineering
- 3. Dr. N.Bagyalakshmi, Member, BOS/ Biomedical Engineering
- 4. Prof.P.Ganesh Babu, Member, BOS/ Biomedical Engineering
- 5. Prof.C.Sathish Kumar, Member, BOS/ Biomedical Engineering
- 6. Dr.B.Padmapriya, Member, University Nominee
- 7. Dr.A.Kavitha, Member, Academic Council Nominee
- 8. Dr.N.Sriraam, Member, Academic Council Nominee
- 9. Mr.Rodda Koteeswara, Member, Industrial Expert
- 10. Mr. J. Hariraman, Member, Representative from Alumni
- 11. Dr.S.Sumathi, HOD/ECE/ACE, Inter Disciplinary Expert
- 12. Dr.N.G. Ramesh Babu, HOD/Bio Tech/ACE, Inter Disciplinary Expert
- To consider the minutes of the Twenty second meeting of the Board of Studies in Biomedical Engineering held on 9.11.2019.
  - **RESOLVED** that the minutes of the Twenty second meeting of the Board of Studies in Biomedical Engineering have been considered.
- To consider the minutes of Board of Studies in Biomedical Engineering held on 27.06.2020.
  - **RESOLVED** that the minutes of the Board of Studies in Biomedical Engineering have been considered.

23.3 To consider the syllabi of 7<sup>th</sup> semester of B.E (Biomedical Engineering) under **Regulation 2015 (CBCS)** for the batch of students admitted in 2017-18.

**RESOLVED** that the syllabi of 7<sup>th</sup> semester of B.E (Biomedical Engineering) under **Regulation 2015 (CBCS)** for the batch of students admitted in 2017-18 be approved (**Annexure – I**).

To consider the syllabi of 5<sup>th</sup> semester of B.E (Biomedical Engineering) under **Regulation 2018 (CBCS)** for the batch of students admitted in 2018-19.

**RESOLVED** that the syllabi of 5<sup>th</sup> semester of B.E (Biomedical Engineering) under **Regulation 2018 (CBCS)** for the batch of students admitted in 2018-19 be approved (**Annexure-II**).

To consider the syllabi of 3<sup>rd</sup> semester of B.E (Biomedical Engineering) under **Regulation 2018 (CBCS)** for the batch of students admitted in 2019-20.

**RESOLVED** that the syllabi of 3<sup>rd</sup> semester of B.E (Biomedical Engineering) under **Regulation 2018 (CBCS)** for the batch of students admitted in 2019-20 be approved (**Annexure-III**).

To consider the syllabi of 8<sup>th</sup> semester of B.E (Biomedical Engineering) under **Regulation 2015 (CBCS)** for the batch of students admitted in 2017-18.

**RESOLVED** that the syllabi of 8<sup>th</sup> semester of B.E (Biomedical Engineering) under **Regulation 2015 (CBCS)** for the batch of students admitted in 2017-18 be approved (**Annexure – IV**).

To consider the syllabi of 6<sup>th</sup> semester of B.E (Biomedical Engineering) under **Regulation 2018 (CBCS)** for the batch of students admitted in 2018-19.

**RESOLVED** that the syllabi of 6<sup>th</sup> semester of B.E (Biomedical Engineering) under **Regulation 2018 (CBCS)** for the batch of students admitted in 2018-19 be approved (**Annexure-V**).

23.8 To consider the syllabi of 4<sup>th</sup> semester of B.E (Biomedical Engineering) under **Regulation 2018 (CBCS)** for the batch of students admitted in 2019-20.

**RESOLVED** that the syllabi of 4<sup>th</sup> semester of B.E (Biomedical Engineering) under **Regulation 2018 (CBCS)** for the batch of students admitted in 2019-20 be approved (**Annexure-VI**).

23.9 To consider the curriculum of B.E (Biomedical Engineering) under **Regulation 2018 (CBCS)** for the batch of students to be admitted in 2020-21.

**RESOLVED** that the curriculum of B.E (Biomedical Engineering) under **Regulation 2018 (CBCS)** for the batch of students to be admitted in 2020-21 be approved (**Annexure-VII**).

23.10 To consider the panel of examiners for the evaluation process.

**RESOLVED** that the panel of examiners for the evaluation process be approved (Annexure-VIII).

Date: 17.10.2020

Chairman, Board of Studies
Faculty of Bio Medical Engineering (UG)
Adhiyamaan College of Engineering (Autonomous)
Hosur - 635 109

Krishnagiri (Dt), Tamil Nadu.

			23 <sup>rd</sup> BoS Recommendations
Sem	Course Code	Name of the course	Remarks
			(New course introduced/Contents
			incorporated in the corresponding
		2020 2021	course)
		2020-2021	The following topics have bee
			The following topics have been included
			ECG machine maintenance an
			troubleshooting.
			EEG system maintenance ar
			troubleshooting-Unit I
			Echoencephalogram-Unit II
			Apnoea Monitor, Oximetry-In vita
VI	618BMT01	DIAGNOSTIC	oximetry, In vivo oximetry, Es
		EQUIPMENT	oximeter-Unit III
			Basal Skin Resistance (BSR)-Unit IV
			Patient monitoring system ICU/CCU Equipments, bed sic
			monitors, Infusion pumps, Centr
			consoling controls. Radio Telemetr
			(single, multi), Portable and Landlin
			Telemetry unit, Applications in EC
			and EEG Transmission-Unit V
			The following topics have bee
			included
		THERAPEUTIC	Hazards and safety procedures -I Uni
VI	618BMT02		Spinal cord stimulator, Brai
		EQUIPMENT	stimulation for pain reduction -I Unit
			Electrical safety codes and standards
	i i		IEC 60601-1 2005 standard- Unit V
			The following topics have been
			included
			Causes of x-ray tube failure: Electro
			arcing/filament burn out, Failure t
			warm up tube, High temp due to ove
			exposure, x-ray tube rating chart
VI	618BMT03	RADIOLOGICAL	Image characteristics-Unit I
VI	U I O D WI I U J	<b>EQUIPMENT</b>	3D Imaging and its application-Un
			Radionuclide imaging- Bon
			imaging, myocardial perfusion-Un
			IV
			Recent Techniques in radiatio
			therapy - 3DCRT – IMRT – IGRT an
			Cyber knife-Unit V
			The syllabus has been reframed with
VI	618BME06	BIO SIGNAL	the following unit modules
Y 1	STODNIEGO	PROCESSING	Unit I - Introduction to Biomedica
			Signals

			Unit II - Filtering for Removal of Artifact Unit III - Cardiovascular Applications Unit IV - Neurological Applications Unit V - Analysis on Wave shape, Signal Classification and Recognition A model clinical engineering department has been included in the I
VI	618BME07	CLINICAL ENGINEERING	Unit.  Maintenance and repair of medical devices has been included in the II
VI	618BME08	PHYSIOLOGICAL MODELLING	Unit.  The syllabus has been reframed with the following unit modules Unit I - Introduction to Physiological Modelling Unit II - Modelling of Dynamic Physiological System Unit III - Nonlinear Models of Physiological Systems Unit IV - Compartmental Physiological Model Unit V - Simulation of Physiological Systems

Feedback obtained about Curriculum and Syllabus from Stakeholders (Faculty, Student, Alumni, Employers) were also discussed and concluded

Chairman, Board of Studies
Faculty of Bio Medical Engineering (UG)
Adhiyamaan College of Engineering (Autonomous)

Krishine and John John Nodu.

(An Autonomous Institution Affiliated to Anna University, Chennai)

## DEPARTMENT OF BIOMEDICAL ENGINEERING

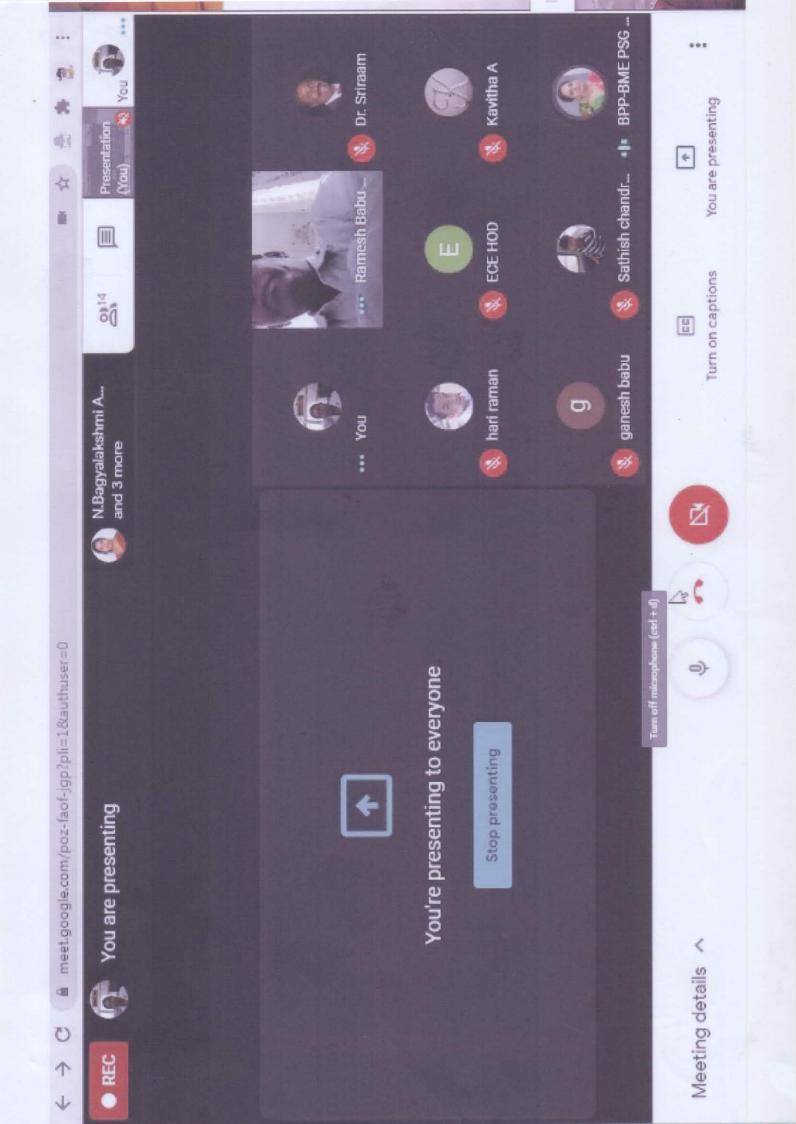
23<sup>rd</sup> Board of Studies meeting in Biomedical Engineering (UG)

Held on 17.10.2020 at 11:00 a.m.

S	Nama	Address	Designation	Attendance
1	Dr.T.S.Udhaya Suriya	Prof & Head, Department of BME, Adhiyamaan College of Engg. Hosur		Present
2	Dr.V.P.Krishnammal	Associate Professor, Department of BME, Adhiyamaan College of Engg. Hosur	Member	Present
3	Dr. N.Bagyalakshmi	Associate Professor, Department of BME, Adhiyamaan college of Engg. Hosur	Member	Present
4	Prof.P.Ganesh Babu	Assistant Professor, Department of BME, Adhiyamaan College of Engg. Hosur	Member	Present
5	Prof.C.Sathish Kumar	Assistant Professor, Department of BME, Adhiyamaan college of Engg. Hosur	Member	Present
6	Dr.B.Padmapriya	Associate Professor Department of Biomedical Engineering PSG College of Technology Peelamedu, Coimbatore- 641004 Ph:9443883109 bpp.bme@psgtech.ac.in	University Nominee	Present
7	Dr.A.Kavitha	Professor & Head, Dept of Biomedical Engineering SSN College of Engineering, Chennai, Tamilnadu. 04427469700 kavithaa@ssn.edu.in	Member Nominated by Academic Council	Present

	8	Dr.N.Sriraam	Professor & Head, Department of Medical Electronics, M.S.Ramaiah Institute of Technology, Bangalore, Karnataka Ph: 09632294999 sriraam@msrit.edu	Member Nominated by Academic Council	Present
	9	Mr.Rodda Koteswara	HOD Biomedical Department, St.John's Medical College Hospital, Bangalore-560034	Industrial Expert	Present
10	0   1	Mr. J. Hariraman, B.E.,	Territory Manager Fisher and Paykel Healthcare Company Coimbatore Ph: 9597299911 Hariraman.jeyaprakash@fp hcare.in	Representative from Alumni	Present
11		Or.S.Sumathi	Professor & Head Department of Electronics & Communication Engineering Adhiyamaan College of Engineering Hosur.	Inter Disciplinary Expert	Present
12	Di	r.N.G. Ramesh Babu	Professor & Head Department of Biotechnology Adhiyamaan College of Engineering, Hosur Ph:9845697770 hod_bt@adhiyamaan.ac.in	Inter Disciplinary Expert	Present

Chairman 20



(An Autonomous Institution Affiliated to Anna University, Chennai)

### DEPARTMENT OF BIOMEDICAL ENGINEERING

## **Board of Studies in Biomedical Engineering**

Minutes of the Meeting of the Board of Studies in Biomedical Engineering held on 27,06,2020 at 11:00 a.m.

- 1. Dr.T.S.Udhaya Suriya, Chairman, BOS/ Biomedical Engineering
- 2. Dr. V.P. Krishnammal, Member, BOS/ Biomedical Engineering
- 3. Dr. V. Veeramanikandan, Member, BOS/ Biomedical Engineering
- 4. Prof.P.Ganesh Babu, Member, BOS/ Biomedical Engineering
- 5. Prof.C.Sathish Kumar, Member, BOS/ Biomedical Engineering
- 6. Dr.S.Rajkumar, Member, Academic Council Nominee
- 7. Mr.Sivaraj, Member, Representative from Alumni
- 8. Dr.S.Sumathi, HOD/ECE/ACE, Inter Disciplinary Expert
- 9. Dr.S. Sujatha, HOD/EIE/ACE, Inter Disciplinary Expert
- 1. To consider the minutes of the Twenty second meeting of the Board of Studies in Biomedical Engineering held on 9.11.2019.
  - **RESOLVED** that the minutes of the Board of Studies in Biomedical Engineering have been considered.
- 2. To consider the syllabi of 7<sup>th</sup> semester of B.E (Biomedical Engineering) under **Regulation 2015 (CBCS)** for the batch of students admitted in 2017-18.
  - **RESOLVED** that the syllabi of 7<sup>th</sup> semester of B.E (Biomedical Engineering) under **Regulation 2015 (CBCS)** for the batch of students admitted in 2017-18 be approved (**Annexure I**).

To consider the syllabi of 5<sup>th</sup> semester of B.E (Biomedical Engineering) under Regulation 2018 (CBCS) for the batch of students admitted in 2018-19.

**RESOLVED** that the syllabi of 5<sup>th</sup> semester of B.E (Biomedical Engineering) under **Regulation 2018 (CBCS)** for the batch of students admitted in 2018-19 be approved (**Annexure-II**).

4. To consider the syllabi of 3<sup>rd</sup> semester of B.E (Biomedical Engineering) under **Regulation 2018 (CBCS)** for the batch of students admitted in 2019-20.

**RESOLVED** that the syllabi of 3<sup>rd</sup> semester of B.E (Biomedical Engineering) under **Regulation 2018 (CBCS)** for the batch of students admitted in 2019-20 be approved (**Annexure-III**).

5. To consider the panel of examiners for the evaluation process.

**RESOLVED** that the panel of examiners for the evaluation process be approved (Annexure-V).

Date: 27.06.2020

Chafrman

<u> </u>			nd +1 BoS Recommendations
Sem	Course Code	Name of the course	Remarks
			(New course introduced/Contents
			incorporated in the corresponding
			course)
		2020-2021	
			The following topics have been
			included
		DIGITAL SIGNAL	Biomedical Applications of DSP – I
V		PROCESSING AND	Unit
V	518BMT02	BIOMEDICAL	Case study-FIR filters in a hearing aid
			II Unit
		APPLICATION	Case study- IIR filters to extract alpha
			activity from EEG
			Signal –III Unit
		MICROPROCESSOR	AVR Microcontroller, Case study-
V	510D) (T02	MICROCONTROLLER	Microcontroller in Biomedical
	518BMT03	AND SYSTEM	Applications have been included in the
		DESIGN	VUnit
			The following topics have been
			included
			Data compression of ECG signals
V	518BMT05	ANALOG & DIGITAL	using delta modulation -I Unit
	316DW1103	COMMUNICATION	DEPSK(Digitally encoded PSK)- III
			Unit
			Wireless patient monitoring system
			(WPM) –V Unit

Feedback obtained about Curriculum and Syllabus from Stakeholders (Faculty, Student, Alumni, Employers) were also discussed and concluded

Chairman, Board of Studies
Faculty of Bio Medical Engineering (UG)
Adhiyamaan College of Engineering (Autonomous)

Kirishmagiri (Gi), Tamir Nadis

(An Autonomous Institution Affiliated to Anna University, Chennai)

## DEPARTMENT OF BIOMEDICAL ENGINEERING

Board of Studies meeting in Biomedical Engineering (UG)

Held on 27.06.2020 at 11:00 a.m.

### MEMBERS PRESENT

MEMBERS PRESENT				
S. No.	Name	Address	Designation	Attendance
1	Dr.T.S.Udhaya Suriya	Prof & Head, Department of BME, Adhiyamaan College of Engg. Hosur	Chairman	Present
2	Dr.V.P.Krishnammal	Associate Professor, Department of BME, Adhiyamaan College of Engg. Hosur	Member	Present
3	Dr. N.Bagyalakshmi	Associate Professor, Department of BME, Adhiyamaan college of Engg. Hosur	Member	Present
4	Prof.P.Ganesh Babu	Assistant Professor, Department of BME, Adhiyamaan College of Engg. Hosur	Member	Present
5	Prof.C.Sathish Kumar	Assistant Professor, Department of BME, Adhiyamaan college of Engg. Hosur	Member	Present
6	Dr.S.Sumathi	Professor & Head Department of Electronics & Communication Engineering Adhiyamaan College of Engineering Hosur.	Inter Disciplinary Expert	Present
7	Dr.S. Sujatha	Professor & Head Department of Electronics and Instrumentation Adhiyamaan College of Engineering, Hosur Ph:9845697770 hod eie@adhiyamaan.ac.in	Inter Disciplinary Expert	Present



(An Autonomous Institution Affiliated to Anna University, Chennai)

### DEPARTMENT OF BIOMEDICAL ENGINEERING

## **Board of Studies in Biomedical Engineering**

Minutes of the 22<sup>nd</sup> Meeting of the Board of Studies in Biomedical Engineering held on 9.11.2019 at 11:30 a.m.

- 1. Dr.T.S.Udhaya Suriya, Chairman, BOS/ Biomedical Engineering
- 2. Prof.P.Ganesh Babu, Member, BOS/ Biomedical Engineering
- 3. Prof.C.Sathish Kumar, Member, BOS/ Biomedical Engineering
- 4. Prof. V.P. Krishnammal, Member, BOS/ Biomedical Engineering
- 5. Prof V. Veeramanikandan, Member, BOS/ Biomedical Engineering
- 6. Dr.S.Rajkumar, Member, Academic Council Nominee
- 7. Mr.Rodda Koteeswara, Member, Industrial Expert
- 8. Mr. Sivaraj, Member, Representative from Alumni
- 9. Dr.S.Sujatha, Member, Inter Disciplinary Expert
- 10. Dr.S.Sumathi, Member, Inter Disciplinary Expert
- To consider the minutes of the Twenty first meeting of the Board of Studies in Biomedical Engineering held on 27.04.2019.
  - **RESOLVED** that the minutes of the Twenty first meeting of the Board of Studies in Biomedical Engineering have been considered.
- To consider the syllabi of 8<sup>th</sup> semester of B.E (Biomedical Engineering) under **Regulation 2015 (CBCS)** for the batch of students admitted in 2016-17.
  - **RESOLVED** that the syllabi of 8<sup>th</sup> semester of B.E (Biomedical Engineering) under **Regulation 2015 (CBCS)** for the batch of students admitted in 2016-17 be approved (**Annexure I**).

To consider the syllabi of 6<sup>th</sup> semester of B.E (Biomedical Engineering) under **Regulation 2015 (CBCS)** for the batch of students admitted in 2017-18.

**RESOLVED** that the syllabi of 6<sup>th</sup> semester of B.E (Biomedical Engineering) under **Regulation 2015 (CBCS)** for the batch of students admitted in 2017-18 be approved (**Annexure-II**).

To consider the syllabi of 4<sup>th</sup> semester of B.E (Biomedical Engineering) under **Regulation 2018 (CBCS)** for the batch of students admitted in 2018-19.

**RESOLVED** that the syllabi of 4<sup>th</sup> semester of B.E (Biomedical Engineering) under **Regulation 2018 (CBCS)** for the batch of students admitted in 2018-19 be approved (**Annexure-III**).

To consider the curriculum B.E (Biomedical Engineering) under **Regulation 2018 (CBCS)** for the batch of students admitted in 2019-20.

**RESOLVED** that the curriculum of B.E (Biomedical Engineering) under **Regulation 2018 (CBCS)** for the batch of students admitted in 2019-20 be approved (**Annexure-IV**).

22.6 To consider the panel of examiners for the evaluation process.

**RESOLVED** that the panel of examiners for the evaluation process be approved (Annexure-V).

Date: 09.11.2019

Chairman

	Departmen	t of Biomedical Enginee	ering-22 <sup>nd</sup> BoS Recommendations Remarks
Sem	Course Code	Name of the course	(New course introduced/Contents incorporated in the corresponding course)
		2019-	
IV	ALODN (TO)	ANALOG INTEGRATED	The following topics are included in the existing syllabus,  UNIT – II Feedback Amplifiers  Current mirror and current sources, Currer sources as active loads, Voltage sources, Voltage References, BJT Differential amplifier with active
	418BMT02	CIRCUITS	loads, Basic concept of feedback amplifiers
VI	418BMT03	DIGITAL LOGIC DESIGN	positive feed back, Advantages of negative feedback – voltage / current, series , Shurfeedback – stability of feed back.  UNIT-V-Three terminal fixed and adjustable voltage regulators  The Double Data Rate SDRAM included in the I Unit  Case studies-Biomedical Application included in
			the V unit
VI	418BMT04	PATHOLOGY AND MICROBIOLOGY	The syllabus has been framed with the following unit modules  UNIT – I Cell Degeneration, Repair& Neoplasia  UNIT – II Fluid and Hemodynamic Derangemen  UNIT – III Fundamentals of Microbiology  UNIT – IV Microbial diseases and Diagnosis  UNIT – V Immunopathology & Immuno  Diagnosis
VI	418BMT05	BIOCHEMISTRY	The syllabus has been framed with the following unit modules  UNIT – I Introduction to Biochemistry  UNIT – II Carbohydrates  UNIT – III Lipids  UNIT – IV Nucleic Acid & Protein  UNIT – V Enzyme & its clinical application
VI	418BMP08	PATHOLOGY AND MICROBIOLOGY LABORATORY	Newly Introduced Lab

Feedback obtained about Curriculum and Syllabus from Stakeholders (Faculty, Student, Alumni, Employers) were also discussed and concluded

(An Autonomous Institution Affiliated to Anna University, Chennai)

## DEPARTMENT OF BIOMEDICAL ENGINEERING

22<sup>nd</sup> Board of Studies meeting in Biomedical Engineering (UG)

Held on 09.11.2019 at 11:30 a.m.

S. No.	Name	Address	Designation	Signature
1	Dr.T.S.Udhaya Suriya	Prof & Head, Department of BME, Adhiyamaan College of Engg. Hosur	Chairman	Shur
2	Prof.P.Ganesh Babu	Assistant Professor, Department of BME, Adhiyamaan College of Engg. Hosur	Member	MS.
3	Prof.C.Sathish Kumar	Assistant Professor, Department of BME, Adhiyamaan college of Engg. Hosur	Member	Spir
4	Prof.V.P.Krishnammal	Associate Professor, Department of BME, Adhiyamaan College of Engg. Hosur	Member	1 Photo
5	Prof.V.Veeramanikandan	Assistant Professor, Department of BME, Adhiyamaan college of Engg. Hosur	Member	1. 2 3/1/
6	Dr.M.Sasikala	Associate Professor Department of Electronics & Communication Engineering CEG Campus, Anna University, Chennai-600025	University Nominee	AB
7	Dr.S.Rajkumar	Professor & Head Department of Biomedical Engineering, Rajalakshmi Engineering College, Chennai	Member Nominated by Academic Council	hy
8	Dr.N.Sriraam	Professor & Head Department of Medical Electronics, M.S.Ramaiah Institute of Technology, Bangalore,	Member Nominated by Academic Council	AB

	1			
5		Karnataka.		
9	Mr.Rodda Koteswara	HOD Biomedical Department, St.John's Medical College Hospital, Bangalore-560034	Industrial Expert	By Star Son
10	Mr.Sivaraj	Senior Executive Service Karlstorz Ltd, Healthcare Sector, Bangalore-560001	Representative from Alumni	T. Pauf
11	Dr.S.Sujatha	Professor & Head Department of Electronics & Instrumentation Engineering Adhiyamaan College of Engineering Hosur.	Inter Disciplinary Expert	Chapter.
12	Dr.S.Sumathi	Professor & Head Department of Electronics & Communication Engineering Adhiyamaan College of Engineering Hosur.	Inter Disciplinary Expert	Juen

Chairman

## 



(An Autonomous Institution Affiliated to Anna University, Chennai)

## DEPARTMENT OF BIOMEDICAL ENGINEERING

## **Board of Studies in Biomedical Engineering**

Minutes of the 21<sup>st</sup> Meeting of the Board of Studies in Biomedical Engineering held on 27.04.2019 at 11:30 a.m.

- 1. Dr.T.S.Udhaya Suriya, Chairman, BOS/ Biomedical Engineering
- 2. Prof.P.Ganesh Babu, Member, BOS/ Biomedical Engineering
- 3. Prof.Kumar Kandukuri, Member, BOS/ Biomedical Engineering
- 4. Prof.C.Sathish Kumar, Member, BOS/ Biomedical Engineering
- 5. Prof.V.P.Krishnammal, Member, BOS/ Biomedical Engineering
- 6. Dr.M.Sasikala, Member, University Nominee
- 7. Dr.S.Rajkumar, Member, Academic Council Nominee
- 8. Mr.Rodda Koteeswara, Member, Industrial Expert
- 9. Mr. Sivaraj, Member, Representative from Alumni
- 10. Dr.S.Sujatha, Member, Inter Disciplinary Expert
- 11. Dr.S.Sumathi, Member, Inter Disciplinary Expert
- To consider the minutes of the twentieth meeting of the Board of Studies in Biomedical Engineering held on 27.10.2018.
  - **RESOLVED** that the minutes of the twentieth meeting of the Board of Studies in Biomedical Engineering have been considered.
- To consider the syllabi of 7<sup>th</sup> semester of B.E (Biomedical Engineering) under **Regulation 2015 (CBCS)** for the batch of students admitted in 2016-17.
  - **RESOLVED** that the syllabi of 7<sup>th</sup> semester of B.E (Biomedical Engineering) under **Regulation 2015 (CBCS)** for the batch of students admitted in 2016-17 be approved (**Annexure I**).

To consider the syllabi of 5<sup>th</sup> semester of B.E (Biomedical Engineering) under **Regulation 2015 (CBCS)** for the batch of students admitted in 2017-18.

**RESOLVED** that the syllabi of 5<sup>th</sup> semester of B.E (Biomedical Engineering) under **Regulation 2015 (CBCS)** for the batch of students admitted in 2017-18 be approved (**Annexure-II**).

To consider the syllabi of 3<sup>rd</sup> semester of B.E (Biomedical Engineering) under Regulation 2018 (CBCS) for the batch of students admitted in 2018-19.

**RESOLVED** that the syllabi of 3<sup>rd</sup> semester of B.E (Biomedical Engineering) under **Regulation 2018 (CBCS)** for the batch of students admitted in 2018-19 be approved (**Annexure-III**).

To consider the proposed one credit course (OCC) Industry Interface Program of 8<sup>th</sup> semester of B.E (Biomedical Engineering) under **Regulation 2015** (CBCS) for the batch of students admitted from 2015-16 to gain knowledge in the latest trends and techniques in medical and healthcare.

**RESOLVED** that the proposed one credit course (OCC) Industry Interface Program of 8<sup>th</sup> semester of B.E (Biomedical Engineering) under **Regulation 2015** (CBCS) for the batch of students admitted from 2015-16 to gain knowledge in the latest trends and techniques in medical and healthcare be approved (**Annexure-IV**).

21.6 To consider the list of panel of examiners for the evaluation process.

**RESOLVED** that the list of panel of examiners for the evaluation process be approved (Annexure-V).

Date: 27.04.2019

Chairman

Chairman, Board of Studies
Faculty of Bio Medical Engineering (UG)
Adhiyamaan College of Engineering (Autonomous)
Hosur - 635 109
Krishnagiri (Dt), Tamil Nadu.

			ng-21 <sup>st</sup> BoS Recommendations	
Sem	Course Code	Name of the course	Remarks	
	Σ)		(New course introduced/Contents	
			incorporated in the corresponding course)	
2018-2019				
III	318BMT02	ELECTRICAL MACHINES	The following topics are included in the existing syllabus,  UNIT - I Magnetic circuits  Magnetic effects of electric current,  Magnetic circuits, Magnetic materials and  B-H relationship, Electromagnetic induction and force, Hysteresis and eddy current losses.	
III	318BMT03	HUMAN ANATOMY & PHYSIOLOGY	The syllabus has been framed with the following unit modules Unit I -Basics of Human Body Unit II -Hematological System Unit III -Renal, Respiratory And Cardiac System Unit IV -Nervous System, Sensory Organs And Endocrine System Unit V -Skeletal, Digestive And Reproductive System	
			s from Stakeholders (Faculty, Student,	
Alumni,	Employers) were	also discussed and con-	cluded	

Les

Chairman, Board of Studies
Faculty of Bio Medical Engineering (UG)
Adhiyamaan College of Engineering (Autonomous)
Hosur - 635 109
Krisnnagiri (Dt), Tainii Nadu.

(An Autonomous Institution Affiliated to Anna University, Chennai)

## DEPARTMENT OF BIOMEDICAL ENGINEERING

21st Board of Studies meeting in Biomedical Engineering (UG)

Held on 27.04.2019 at 11:30 a.m.

S. No.	Name	Address	Designation	Signature
1	Dr.T.S.Udhaya Suriya	Prof & Head, Department of BME, Adhiyamaan College of Engg. Hosur	Chairman	Glas
2	Prof.P.Ganesh Babu	Assistant Professor, Department of BME, Adhiyamaan College of Engg. Hosur	Member	<u>Clus</u>
3	Prof.Kumar Kandukuri	Assistant Professor, Department of BME, Adhiyamaan College of Engg. Hosur	Member	Quines
4	Prof.C.Sathish Kumar	Assistant Professor, Department of BME, Adhiyamaan college of Engg. Hosur	Member	Phin
5	Prof.V.P.Krishnammal	Associate Professor, Department of BME, Adhiyamaan College of Engg. Hosur	Member	V.P. losh
6	Dr.M.Sasikala	Associate Professor Department of Electronics & Communication Engineering CEG Campus, Anna University, Chennai-600025	University Nominee	M-Janik
7	Dr.S.Rajkumar	Professor & Head Department of Biomedical Engineering, Rajalakshmi Engineering College, Chennai	Member Nominated by Academic Council	hy
8	Dr.N.Sriraam	Professor & Head Department of Medical Electronics, M.S.Ramaiah Institute of Technology, Bangalore,	Member Nominated by Academic Council	AB

9	Mr.Rodda Koteswara	Karnataka.  HOD Biomedical Department, St.John's Medical College Hospital, Bangalore-560034	Industrial Expert	of geograph.
10	Mr.Sivaraj	Senior Executive Service Karlstorz Ltd, Healthcare Sector, Bangalore-560001	Representative from Alumni	T.Q
11	Dr.S.Sujatha	Professor & Head Department of Electronics & Instrumentation Engineering Adhiyamaan College of Engineering Hosur.	Inter Disciplinary Expert	Color dules
12	Dr.S.Sumathi	Professor & Head Department of Electronics & Communication Engineering Adhiyamaan College of Engineering Hosur.	Inter Disciplinary Expert	Juses

Chairman

Chairman, Board of Studies
Faculty of Bio Medical Engineering (UG)
Adhiyamaan College of Engineering (Autonomous)
Hosur - 635 109
Krishnagiri (Dt), Tamil Nadu.

# 



(An Autonomous Institution Affiliated to Anna University, Chennai)

## DEPARTMENT OF BIOMEDICAL ENGINEERING

## **Board of Studies in Biomedical Engineering**

Minutes of the 20<sup>th</sup> Meeting of the Board of Studies in Biomedical Engineering held on 27.10.2018 at 10:30 a.m.

#### MEMBERS PRESENT

- 1. Dr.T.S.Udhaya Suriya, Chairman, BOS/ Biomedical Engineering
- 2. Prof.P.Ganesh Babu, Member, BOS/ Biomedical Engineering
- 3. Prof.Kumar Kandukuri, Member, BOS/ Biomedical Engineering
- 4. Prof.C.Sathish Kumar, Member, BOS/ Biomedical Engineering
- 5. Prof.V.P.Krishnammal, Member, BOS/ Biomedical Engineering
- 6. Dr.M.Sasikala, Member, University Nominee
- 7. Dr.S.Rajkumar, Member, Academic Council Nominee
- 8. Dr.N.Sriraam, Member, Academic Council Nominee
- 9. Mr.Rodda Koteeswara, Member, Industrial Expert
- 10. Mr. Sivaraj, Member, Representative from Alumni
- 11. Dr.S.Sujatha, Member, Inter Disciplinary Expert
- 12. Dr.S.Sumathi, Member, Inter Disciplinary Expert
- 20.1 To consider the minutes of the Nineteenth meeting of the Board of Studies in Biomedical Engineering held on 21.04.2018.
  - **RESOLVED** that the minutes of the Nineteenth meeting of the Board of Studies in Biomedical Engineering have been considered.
- 20.2 To consider the syllabi of 8<sup>th</sup> semester of B.E (Biomedical Engineering) under Regulation 2015 (CBCS) for the batch of students admitted in 2015-16.

**RESOLVED** that the syllabi of 8<sup>th</sup> semester of B.E (Biomedical Engineering) under **Regulation 2015 (CBCS)** for the batch of students admitted in 2015-16 be approved (**Annexure – I**).

To consider the syllabi of 6<sup>th</sup> semester of B.E (Biomedical Engineering) under **Regulation 2015 (CBCS)** for the batch of students admitted in 2016-17.

**RESOLVED** that the syllabi of 6<sup>th</sup> semester of B.E (Biomedical Engineering) under **Regulation 2015 (CBCS)** for the batch of students admitted in 2016-17 be approved (**Annexure-II**).

20.4 To consider the syllabi of 4<sup>th</sup> semester of B.E (Biomedical Engineering) under **Regulation 2015 (CBCS)** for the batch of students admitted in 2017-18.

**RESOLVED** that the syllabi of 4<sup>th</sup> semester of B.E (Biomedical Engineering) under **Regulation 2015 (CBCS)** for the batch of students admitted in 2017-18 be approved (**Annexure-III**).

20.5 To consider the curriculum and evaluation criteria of Regulation 2018, B.E (Biomedical Engineering) under **Regulation 2018 (CBCS)** for the batch of students admitted in 2018-19.

**RESOLVED** that the curriculum and evaluation criteria of Regulation 2018, B.E (Biomedical Engineering) under **Regulation 2018 (CBCS)** for the batch of students admitted in 2018-19 be approved (**Annexure-IV**).

20.6 To consider the list of panel of examiners for the evaluation process.

**RESOLVED** that the list of panel of examiners for the evaluation process be approved (Annexure-V).

Date: 27.10.2018

Chairman

Chairman, Board of Studies
Faculty of Bio Medical Engineering (UG)
Adhiyamaan College of Engineering (Autonomous)
Hosur - 635 109
Krishnagiri (Dt), Tamil Nadu,

	Department of	of Biomedical Engineering-	20th BoS Recommendations
Sem	Course Code	Name of the course	Remarks (New course introduced/Contents incorporated in the corresponding
		2019 2010	course)
		2018-2019	The cyllabus has been referred with
VIII	815BMT01	HOSPITAL ENGINEERING AND	The syllabus has been reframed with the following unit modules  Overview of Hospital Administration  Human Resource Management in Hospital
		MANAGEMENT	<ul> <li>Marketing Research Process</li> </ul>
			<ul> <li>Hospital Information Systems         &amp; Supportive Services</li> <li>Quality and Safety Aspects in         Hospital     </li> <li>The syllabus has been reframed with</li> </ul>
VIII	815BME02	NANOTECHNOLOGY	the following unit modules  Introduction to Nanotechnology  Fabrication and Characterization of Nanomaterials  Properties and Measurement of Nanomaterials  Nano Structures  Applications of
VIII	815BME04	ASSIST DEVICES	Nanotechnology  The following topics are removed in the existing syllabus, From unit III - Bionic Eye From unit IV - Gait analysis I
VIII	815BME05	MEMS	Unit I Mems Materials and Fabrication and Unit IV Micro fluidic System has been swapped
VIII	815BME06	DISASTER MANAGEMENT & MITIGATION	The syllabus has been framed with the following unit modules Unit I-Introduction Unit II-Environmental Disaster Unit III-Earthquake and tsunami Unit IV-Cyclone Unit V-Application of technology in disaster management
VIII	815BME07	ADVANCED MEDICAL INSTRUMENTATION	The syllabus has been reframed with the following unit modules  Implantable stimulators Sensory instruments Special equipments Analytical instruments

			Applications of medical equipments
VIII	(815BME08)	BRAIN COMPUTER INTERFACE AND APPLICATIONS	The syllabus has been framed with the following unit modules Unit I- Introduction to BCI Unit II - Brain activation Unit III- Feature extraction methods Unit IV -Machine learning methods for BCI Unit V - Case studies in Invasive BCIs and Noninvasive BCIs
VIII	(815BME09)	MEDICAL ROBOTICS	The syllabus has been framed with the following unit modules Unit I- Introduction Unit II - Kinematics Unit III- Robot Vision Unit IV -Planning Unit V - Applications
VIII	815BME10	WEARABLE SYSTEMS	The syllabus has been framed with the following unit modules Unit I- Sensors Unit II -Signal Processing Unit III- Energy harvesting for wearable devices Unit IV -Wireless health systems Unit V - Applications of wearable systems
VIII	815BME11	BIOMETRICS	The following topics are included in the existing syllabus, Unit IV-Sources of multiple evidence- multi sensor system, Multi-algorithm system, Multi-instance system, Multi-sample system Unit V-Performance measures of biometric systems- AR,FRR,FTE,EER,Iris recognition, retina recognition, Voice recognition, Gait-based recognition, Limitations of biometric systems, New biometric challenges, Attacks on Biometric-based authentication systems

Value Added Courses are Recommended

Feedback obtained about Curriculum and Syllabus from Stakeholders (Faculty, Student, Alumni, Employers) were also discussed and concluded



(An Autonomous Institution Affiliated to Anna University, Chennai)

# DEPARTMENT OF BIOMEDICAL ENGINEERING

20<sup>th</sup> Board of Studies meeting in Biomedical Engineering (UG)

Held on 27.10.2018 at 10:30 a.m.

		MEMBERS PRESENT		
S. No	Nama	Address	Designation	Signature
1	Dr.T.S.Udhaya Suriya	Prof & Head, Department of BME, Adhiyamaan College of Engg. Hosur	Chairman	fler
2	Prof.P.Ganesh Babu	Assistant Professor, Department of BME, Adhiyamaan College of Engg. Hosur	Member	0.4/2
3	Prof.Kumar Kandukuri	Assistant Professor, Department of BME, Adhiyamaan College of Engg. Hosur	Member	Quant.
4	Prof.C.Sathish Kumar	Assistant Professor, Department of BME, Adhiyamaan college of Engg. Hosur	Member	gan.
5	Prof.V.P.Krishnammal	Associate Professor, Department of BME, Adhiyamaan College of Engg. Hosur	Member	Mohn
6	Dr.M.Sasikala	Associate Professor Department of Electronics & Communication Engineering CEG Campus, Anna University, Chennai-600025	University Nominee	le-Sarikala
7	Dr.S.Rajkumar	Professor & Head Department of Biomedical Engineering, Rajalakshmi Engineering College, Chennai	Member Nominated by Academic Council	My
8	Dr.N.Sriraam	Professor & Head Department of Medical Electronics, M.S.Ramaiah Institute of	Member Nominated by Academic Council	N. 8

		Technology, Bangalore, Karnataka.		
9	Mr.Rodda Koteswara	HOD Biomedical Department, St.John's Medical College Hospital, Bangalore-560034	Hospital Industrial Expert	OX 27/0/20
10	Mr.Sivaraj	Senior Executive Service Karlstorz Ltd, Healthcare Sector, Bangalore-560001	Representative from Alumni	T. Butte
11	Dr.S.Sujatha	Professor & Head Department of Electronics & Instrumentation Engineering Adhiyamaan College of Engineering Hosur.	Inter Disciplinary Expert	Englished W
12	Dr.S.Sumathi	Professor & Head Department of Electronics & Communication Engineering Adhiyamaan College of Engineering Hosur.	Inter Disciplinary Expert	Joseph

Chairman

Chairman, Reard of Studies
Faculty of Eto Macrost Represent (AUS)
Adhiyamaan Contigons of the sense productions)
Hospir - 635 fr9
Krishnagiri (Dt), Tamil Nadu.

# 



(An Autonomous Institution Affiliated to Anna University, Chennai)

#### DEPARTMENT OF BIOMEDICAL ENGINEERING

Board of Studies in Biomedical Engineering

Minutes of the 19<sup>th</sup> Meeting of the Board of Studies in Biomedical Engineering held on 21.04.2018 at 10:30 a.m.

- 1. Dr.T.S.Udhaya Suriya, Chairman, BOS/ Biomedical Engineering
- 2. Prof.P.Ganesh Babu, Member, BOS/ Biomedical Engineering
- 3. Prof.Kumar Kandukuri, Member, BOS/ Biomedical Engineering
- 4. Prof.C.Sathish Kumar, Member, BOS/ Biomedical Engineering
- 5. Prof.V.P.Krishnammal, Member, BOS/ Biomedical Engineering
- 6. Dr. A.Mahabub Baasha, Member, University Nominee
- 7. Dr.S.Poonguzhali, Member, Academic Council Nominee
- 8. Mr.B.S.Rajasekar, Member, Representative from Alumni
- 9. Dr.S.Sujatha, Member, Inter Disciplinary Expert
- 10. Dr.S.Sumathi, Member, Inter Disciplinary Expert
- 19.1 To consider the minutes of the Eighteenth meeting of the Board of Studies in Biomedical Engineering held on 28.10.2017.
  - **RESOLVED** that the minutes of the Eighteenth meeting of the Board of Studies in Biomedical Engineering have been considered.
- To consider the syllabi of 7<sup>th</sup> semester of B.E (Biomedical Engineering) under Regulation 2015 (CBCS) for the batch of students admitted in 2015-16.
  - **RESOLVED** that the syllabi of 7<sup>th</sup> semester of B.E (Biomedical Engineering) under Regulation 2015 (CBCS) for the batch of students admitted in 2015-16 be approved (Annexure I).

To consider the syllabi of 5<sup>th</sup> semester of B.E (Biomedical Engineering) under Regulation 2015 (CBCS) for the batch of students admitted in 2016-17.

**RESOLVED** that the syllabi of 5<sup>th</sup> semester of B.E (Biomedical Engineering) under Regulation 2015 (CBCS) for the batch of students admitted in 2016-17 be approved (Annexure-II).

To consider the syllabi of 3<sup>rd</sup> semester of B.E (Biomedical Engineering) under Regulation 2015 (CBCS) for the batch of students admitted in 2017-18.

**RESOLVED** that the syllabi of 3<sup>rd</sup> semester of B.E (Biomedical Engineering) under Regulation 2015 (CBCS) for the batch of students admitted in 2017-18 be approved (Annexure-III).

Date: 21.04.2018

Chairman, Board of Studies
Faculty of Bio Medical Engineering (UG)
Adhiyamaan College of Engineering (Autonomous)
Hosur - 635 109
Krishnagiri (Dt), Tamil Nadu.

Sem	Course Code	Name of the course	ng-19 <sup>th</sup> BoS Recommendations
30111	Course Code	ivame of the course	Remarks
			(New course introduced/Contents
		2017 20	incorporated in the corresponding cours
		2017-20	
			The syllabus has been reframed with the
			following unit modules
VII		MEDICAL	<ul> <li>Optical Properties of The Tissues</li> </ul>
	715BMT01	OPTICS	<ul> <li>Instrumentation in Photonics</li> </ul>
		0.1165	<ul> <li>Applications of Lasers</li> </ul>
			<ul> <li>Optical Coherence Tomography</li> </ul>
			<ul> <li>Special Optical Techniques</li> </ul>
			The syllabus has been reframed with the
			following unit modules
			Digital Image Fundamental and
VII		DIGITAL IMAGE	Transforms
VII	715BMT02	PROCESSING	Image Enhancement
		TROCESSING	<ul> <li>Image Restoration and</li> </ul>
			Recognition
			• Image Segmentation
			• Image Compression
			The existing syllabus has been entirely
			reframed with the following unit module
			<ul> <li>Introduction to Mechanics</li> </ul>
VII	71 SDN 47702	DIOMEGUANUGG	Biofluid Mechanics
	715BMT03	BIOMECHANICS	<ul> <li>Mechanics of Skeletal Muscle</li> </ul>
			<ul> <li>Mechanics of Shoulder, Knee An</li> </ul>
			Hip
			Orthopaedic Mechanics
			The following topics are included in the
			existing syllabus,
		PATTERN	<ul> <li>Application of pattern recognition</li> </ul>
VII		RECOGNITION &	<ul> <li>LMS learning algorithm rule-</li> </ul>
7 11	715BMT04	NEURAL	Application
		NETWORKS	<ul> <li>MRII Training Algorithm-</li> </ul>
		INET WORKS	Translation invariant pattern
			recognition
			The existing syllabus has been entirely
			reframed with the following unit module
			Introduction to Medical
			Informatics
VII	715014705	MEDICAL	
	715BMT05	INFORMATICS	Medicine and The Internet
			Computer Assisted Medical
			Imaging and Clinical Laboratory
			Telemedicine and Technology
			<ul> <li>Computer Aids for the</li> </ul>

			Handicapped
VII	715BME06	REHABILITATION ENGINEERING	The existing syllabus has been entirely reframed with the following unit modules  Introduction to Rehabilitation & Rehabilitation Team  Orthotic Devices in Rehabilitation Engineering  Therapeutic Exercise Technique Principles in Management of Communication  Amputation and Prosthetic Devices
VII	715BME07	ICU & OPERATION THEATRE EQUIPMENTS	<ul> <li>The following topics are included in the existing syllabus,</li> <li>Surgical monitoring system</li> <li>Medical vacuum system, Gas pipeline system, colour coding, regulators</li> <li>Oxygen Concentrator, Refrigerator, Water systems in hospitals</li> </ul>
VII	715BME08	PROFESSIONAL ETHICS AND HUMAN VALUES	The syllabus has been framed with the following unit modules  • Human values  • Engineering ethics  • Engineering as social experimentation  • Safety, responsibilities and rights  • Global issues
VII	715BMP07	DIGITAL IMAGE PROCESSING LAB	Display of images is removed from the List of experiment  Various segmentation algorithms are included. In the syllabus.
VII	715BMP08	HOSPITAL TRAINING LAB	Training to be undergone for minimum two weeks after VI semester and should produce certificates from the Hospital
VII	7 <mark>15BMP09</mark>	MINI PROJECT	The course is to design and development of basic prototypes leading to low cost systems applied in the field of Biomedical Engineering
		Curriculum and Syllabus also discussed and conc	from Stakeholders (Faculty, Student, luded

Chairman, Board of Studies
Faculty of Bio Medical Engineering (UG)
Adhiyamaan College of Engineering (Autonomous)
Hosur - 635 109
Krishnagiri (Ot), Tamil Nadu.

(An Autonomous Institution Affiliated to Anna University, Chennai)

## DEPARTMENT OF BIOMEDICAL ENGINEERING

19<sup>th</sup> Board of Studies meeting in Biomedical Engineering (UG)

Held on 21.04.2018 at 10:30 a.m.

S. No.	Name	Address	Designation	Signature
1	Dr.T.S.Udhaya Suriya	Prof & Head, Department of BME, Adhiyamaan College of Engg. Hosur	Chairman	Sur
2	Prof.P.Ganesh Babu	Assistant Professor, Department of BME, Adhiyamaan College of Engg. Hosur	Member	MS
3	Prof.Kumar Kandukuri	Assistant Professor, Department of BME, Adhiyamaan College of Engg. Hosur	Member	Dunaf.
4	Prof.C.Sathish Kumar	Assistant Professor, Department of BME, Adhiyamaan college of Engg. Hosur	Member	John
5	Prof.V.P.Krishnammal	Associate Professor, Department of BME, Adhiyamaan College of Engg. Hosur	Member	18/12/2
6	Dr.A.Mahabub Baasha	Professor Department of Electronics & Instrumentation Engineering KSR College of Engineering Tiruchengode – 637 215	University Nominee	Openym
7	Dr.S.Poonguzhali	Associate Professor Department of Electronics & Instrumentation Engineering College of Engineering Anna University, Chennai	Member Nominated by Academic Council	
8	Dr.R.M.G.Sumithra	Professor & Head Dept of Electronics and Communication Engineering, Bannari Amman Institute of Technology, Sathy.	Member Nominated by Academic Council	AB

9	Mr.K.Mohanavelu	Scientist & Group Head, Biomedical Instrumentation, Defence Bioengineering & Electro-medical Lab DRDO,Ministry of Defence,Bangalore.	Industrial Expert	AB
10	Mr.B.S.Rajasekar	Biomedical Engineer St.John's Medical College & Hospital,Bangalore.	Representative from Alumni	B.S.Raj.
11	Dr.S.Sujatha	Professor & Head Department of Electronics & Instrumentation Engineering Adhiyamaan College of Engineering Hosur.	Inter Disciplinary Expert	Charles .
12	Dr.S.Sumathi	Professor & Head Department of Electronics & Communication Engineering Adhiyamaan College of Engineering Hosur.	Inter Disciplinary Expert	Jess

Chairman

Chairman, Board of Studies
Faculty of Bio Medical Engineering (UG)
Adhiyannaan College of Engineering (Autonomous)
Hosur - 635 109
Krishnagiri (Dt), Tamil Nadu.

# 



(An Autonomous Institution Affiliated to Anna University, Chennai)

#### DEPARTMENT OF BIOMEDICAL ENGINEERING

Board of Studies in Biomedical Engineering

Minutes of the 18<sup>th</sup> Meeting of the Board of Studies in Biomedical Engineering held on 28.10.2017 at 10:00 a.m.

- 1. Dr.T.S.Udhaya Suriya, Chairman, BOS/ Biomedical Engineering
- 2. Prof.P.Ganesh Babu, Member, BOS/ Biomedical Engineering
- 3. Prof.Kumar Kandukuri, Member, BOS/Biomedical Engineering
- 4. Prof.C.Sathish Kumar, Member, BOS/ Biomedical Engineering
- 5. Prof.V.Krishnammal, Member, BOS/ Biomedical Engineering
- 6. Dr. A.Mahabub Baasha, Member, University Nominee
- 7. Dr.S.Poonguzhali, Member, Academic Council Nominee
- 8. Dr.M.G.Sumithra, Member, Academic Council Nominee
- 9. Mr.K.Mohanavelu, Member, Industrial Expert
- 10. Dr.S.Sujatha, Member, Inter Disciplinary Expert
- 11. Dr.S.Sumathi, Member, Inter Disciplinary Expert
- To consider the minutes of the seventeenth meeting of the Board of Studies in Biomedical Engineering held on 01.04.2017.
  - **RESOLVED** that the minutes of the seventeenth meeting of the Board of Studies in Biomedical Engineering have been considered.
- To consider the syllabi of 8<sup>th</sup> semester of B.E (Biomedical Engineering) under Regulation 2011 for the batch of students admitted in 2014-15 (Annexure-I).

**RESOLVED** that the syllabi of 8<sup>th</sup> semester of B.E (Biomedical Engineering) under Regulation 2011 for the batch of students admitted in 2014-15 be approved (Annexure – I).

To consider the syllabi of 6<sup>th</sup> semester of B.E (Biomedical Engineering) under Regulation 2015 (CBCS) for the batch of students admitted in 2015-16 (Annexure-II).

**RESOLVED** that the syllabi of 6<sup>th</sup> semester of B.E (Biomedical Engineering) under Regulation 2015 (CBCS) for the batch of students admitted in 2015-16 be approved (Annexure – II).

To consider the syllabi of 4<sup>th</sup> semester of B.E (Biomedical Engineering) under Regulation 2015 (CBCS) for the batch of students admitted in 2016-17 (Annexure-III).

**RESOLVED** that the syllabi of 4<sup>th</sup> semester of B.E (Biomedical Engineering) under Regulation 2015 (CBCS) for the batch of students admitted in 2016-17 be approved (Annexure-III).

To consider the syllabus of 815BME08- Biometrics for the 6<sup>th</sup> semester B.E-Electronics and Communication Engineering course under Regulation 2015(CBCS), for the batch of students admitted in 2015-16 (Annexure – IV).

**RESOLVED** that the syllabus of 815BME08- Biometrics for the 6<sup>th</sup> semester B.E- Electronics and Communication Engineering course under Regulation 2015(CBCS), for the batch of students admitted in 2015-16 (Annexure – IV).

To consider the syllabi of 715BMT04- Pattern Recognition & Neural Networks, 715BME05- Medical Informatics for the 6<sup>th</sup> semester B.Tech- Information Technology course under Regulation 2015(CBCS), for the batch of students admitted in 2015-16 (Annexure – V).

**RESOLVED** that the syllabi of 715BMT04- Pattern Recognition &Neural Networks, 715BME05- Medical Informatics for the 6<sup>th</sup> semester B.Tech-Information Technology course under Regulation 2015(CBCS), for the batch of students admitted in 2015-16 (Annexure – V).

Date: 28.10.2017

Chairman

Chairman, Board of Studies
Faculty of Bio Medical Engineering (UG)
Adhiyamaan College of Engineering (Autonomous)
Hosur - 635 109
Krishnagiri (Dt), Tamil Nadu.

	Department of	Biomedical Engineeri	ng-18 <sup>th</sup> BoS Recommendations
Sem	Course Code	Name of the course	Remarks (New course introduced/Contents incorporated in the corresponding course)
		2017-20	
VI	615BMT <mark>0</mark> 1	DIAGNOSTIC EQUIPMENT	The syllabus has been framed with the following unit modules  • Cardiac Equipment and Biotelemetry  • Neurological Equipment and Patient Monitoring  • Ultrasonic Technique  • Respiratory Measurement System  • Sensory Measurement
VI	615BMT02	THERAPEUTIC EQUIPMENT	The syllabus has been framed with the following unit modules  Diathermy Equipment  Cardiac Equipment  Physiotherapy and Electrotherapy Equipments  Extra Corporeal Devices  Patient Safety
VI	615BMT03	RADIOLOGICAL EQUIPMENT	The following topics are included in the existing syllabus,  Various Generation scanners, 3D CT and PET-CT are included
VI	615BMT04	MEDICAL EMBEDDED SYSTEMS	The syllabus has been framed with the following unit modules  Introduction to Embedded Computing and ARM Processors  Computing Platform Program Design and Analysis Process and Operating Systems Medical Applications
VI	615BMT05	BIOMATERIALS AND ARTIFICIAL	The following topics are included in the existing syllabus, Case Study-Blood Coagulation, Bone
VI	615BME06	MEDICAL SAFETY AND QUALITY ASSURANCE	Coagulation, Synthesis, Characterization, Animal Testing The following topics are included in the existing syllabus, Safety Codes, Standards and Regulations: Case study- Bio waste management safety aspects, Implantable devices, safety

			hazards		
Vl	615BME07	BIO SIGNAL PROCESSING	The existing syllabus has been entirely reframed with the following unit modules  • Introduction to Biomedical Signals  • Adaptive Filters  • Signal Averaging and Realization  • Cardiological Signal Processing  • Neuro Muscular Signal Processing		
VI	615BME09	PHYSIOLOGICAL MODELLING	The existing syllabus has been entirely reframed with the following unit modules  • Properties of Systems and Electrical Analog • Transfer Functions • Impedance Concept • Feedback Systems • Simulation of Biological Systems		
VI	615BMP08	DIAGNOSTIC AND THERAPEUTIC LAB	Analysis of EMG signals is included in the List of experiment		
VI	615BMP09	EMPLOYABILITY SKILLS LAB	Newly introduced for better placement activities		
VI	615BMP10	SEMINAR / PRESENTATION	Students will undergo paper presentation in inter college events or other technical activities and should produce certificates from the host institutes		

Feedback obtained about Curriculum and Syllabus from Stakeholders (Faculty, Student, Alumni, Employers) were also discussed and concluded

Chairman, Board of Studies
Faculty of Bio Medical Engineering (UG)
Adhiyamaan College of Engineering (Autonomous)

Fine (1-1075-109)

Krishnagiri (DI), Tamil Nadu.

(An Autonomous Institution Affiliated to Anna University, Chennai)
DEPARTMENT OF BIOMEDICAL ENGINEERING

18<sup>th</sup> Board of Studies meeting in Biomedical Engineering (UG) Held on 28.10.2017 at 10:00 a.m.

S. No.	Name	Address	Designation	Signature
1	Dr.T.S.Udhaya Suriya	Prof & Head, Department of BME, Adhiyamaan College of Engg. Hosur	Chairman	Heat ay money
2	Prof.P.Ganesh Babu	Associate Professor, Department of BME, Adhiyamaan College of Engg. Hosur	Member	P.W.
3	Prof.Kumar Kandukuri	Assistant Professor, Department of BME, Adhiyamaan College of Engg. Hosur	Member	Runaf.
4	Prof.C.Sathish Kumar	Assistant Professor, Department of BME, Adhiyamaan college of Engg. Hosur	Member	Solin
5	Prof.V.Krishnammal	Assistant Professor, Department of BME, Adhiyamaan College of Engg. Hosur	Member	18 Kigns
6	Dr.A.Mahabub Baasha	Professor Department of Electronics & Instrumentation Engineering KSR College of Engineering Tiruchengode – 637 215	University Nominee	Jahm 12 117
7	Dr.S.Poonguzhali	Associate Professor Department of Electronics & Instrumentation Engineering College of Engineering	Member Nominated by Academic Council	Sec. 2xx

		Anna University, Chennai		
8	DrM.G.Sumithra	Professor Dept of Electronics and Communication Engineering, Bannari Amman Institute of Technology, Sathy.	Member Nominated by Academic Council	S Joseph Mar
9	Mr.K.Mohanavelu	Scientist & Group Head, Biomedical Instrumentation, Defence Bioengineering & Electro-medical Lab DRDO, Ministry of Defence, Bangalore.	Industrial Expert	fredavort
10	Mr.B.S.Rajasekar	Biomedical Engineer St.John's Medical College & Hospital,Bangalore.	Representative from Alumni	AB
11	Dr.S.Sujatha	Professor & Head Department of Electronics & Instrumentation Engineering Adhiyamaan College of Engineering Hosur.	Inter Disciplinary Expert	Charles 119
12	Dr.S.Sumathi	Professor & Head Department of Electronics & Communication Engineering Adhiyamaan College of Engineering Hosur.	Inter Disciplinary Expert	Joese

Lochary oury Faculty of Bio Medical Engineering (UG)

Adhiyamaan College of Engineering (Autonomous)

Hosur - 635 109

Krishnagiri (Dt), Tamil Nadu.

# ADHIYAMAAN COLLEGE OF ENGINEERING (AUTONOMOUS), HOSUR DEPARTMENT OF BIOMEDICAL ENGINEERING PHOTOGRAPH OF 18<sup>TH</sup> BOARD OF STUDIES MEETING ON 28.10.2017

