



Vel Tech
Rangarajan Dr. Sagunthala
R&D Institute of Science and Technology
(Deemed to be University Estd. u/s 3 of UGC Act, 1956)

**School of
Electrical &
Communication**

**Department of
Biomedical
Engineering**

SYMBIOSIS

A BIOMED COLLAB NEWSLETTER

AY: 2023-2024

5th Edition

Department of Biomedical Engineering

Vel Tech is one of the few Institutes offering Biomedical Engineering in Tamil Nadu, with an immense aim of providing a different learning environment to inculcate out-of-box thinking. The department of Biomedical Engineering was established in 2017 under the school of Electrical and Communication with an aim to connect engineering and biology. True to its mission, the department is propelling itself to become a major educator in biomedical engineering by employing diverse workforce. The department has risen to the standards by setting up world class laboratories including Brain Computer Interface (BCI), Biomechanics, Biomedical Instrumentation, and Diagnostic and Therapeutic Equipment.

Vision - To be recognized as an excellent centre in Biomedical Engineering for imparting quality technical education that leads to transformative advancements in healthcare industries

Mission

- M1: To infuse critical thinking skills by providing a strong foundation that enables the students for continuing education
- M2: To create an ambience of academic excellence with state-of-the-art laboratories to compete globally
- M3: To establish a dynamic research environment that integrates advanced healthcare technologies for innovation and progress

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Editor's Desk

The Editors take a great pleasure in presenting the annual newsletter (for AY: 2023-2024) of the Department of Biomedical Engineering, SYMBIOSIS, 5th Edition.

Once again, we would like to start this newsletter with a famous quote from a Nobel laureate, Carl Wieman: “Education is about learning to make better decisions”. In the academic year of 2023-2024, both faculties and students have given their best.

So, we take pride in applauding their efforts and successes/achievements. Besides, this newsletter has a slightly new look to make the readers to understand information in crisp manner.

We hope the readers enjoy and also we will be back in next year with another vibrant issue of SYMBIOSIS with all the information from our department that never fails to stir the enthusiasm.

Faculty Editor - Dr. K. Ganeshlenin, PhD

Associate Professor (TTS2843)

Student Editors – Nikita (vtu22402) &

Yash Sharma (vtu23335)

HoD's Desk:



I am very happy to present our department's academic progression, specially students and faculty members achievements and accomplishments through this *News Bulletin*.

Dr. D. Balasubramaniam
*Head of the Department,
Biomedical Engineering.*

FACULTY RESEARCH ACCOMPLISHMENTS

Publications - 2023

12 Faculty Members have published 32 articles/book chapters/book in the peer-reviewed journals and conferences indexed in Scopus and Web of Science (WoS)

Publications - 2024

12 Faculty Members have published 9 articles/book chapters/book in the peer-reviewed journals and conferences indexed in Scopus and Web of Science (WoS)

Full Time PhD Scholars – 5



Publications 2023

Total - 32

Scopus
Articles
10

WoS
Articles
7

Conferences
Articles
8

Book / Book
Chapters
7



Publications As on May 2024

Total - 9

Scopus
Articles
3

WoS
Articles
6

Patents

Published - 3

Granted - 2

Granted Patent Details



**Dr. Masoodhu Banu,
TTS2309 / Professor,
Biomedical Engineering
No. of Granted Patents - 2**



क्रम सं/SL No :044183900



पेटेंट कार्यालय, भारत सरकार | **The Patent Office, Government Of India**
पेटेंट प्रमाण पत्र | **Patent Certificate**

पेटेंट नियमावली का नियम 74) । (Rule 74 of The Patents Rules) ।

आवेदन सं. / Application No. : 202141044586
प्राप्त कर्ता की तारीख / Date of Filing : 01/10/2021

17/1 / Patentee : Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology

आविकारकों का नाम /Name of Inventor(s) : 1.R.Prasanna 2.Dr.N.Masoodhu Banu 3.Dr.S.Sivaperumal
4.R.Rachel Jeeva Light

प्रमाणित किया जाता है कि पेटेटी को, उपरोक्त आवेदन में व्याप्रकृति *Graphene Based Screen Printed Antenna on Flexible Substrates for Wireless Energy Harvesting Applications* नामक आविष्कार के लिए, पेटेट अधिनियम, 1970 के उपर्योग के अनुसार आज तारीख अक्टूबर 2021 के पहले दिन से बीस वर्ष की अवधि के लिए पेटेट अनुदात किया गया है।

It is hereby certified that a patent has been granted to the patentee for an invention entitled *Graphene Based Screen Printed Antenna on Flexible Substrates for Wireless Energy Harvesting Applications* as disclosed in the above mentioned application for the term of 20 years from the 1st day of October 2021 in accordance with the provisions of the Patents Act, 1970.

टिप्पणी - इस पेटेंट के नवीकरण के लिए शीत, यदि इसे बनाए रखा जाना है, अमनुवार 2023 के जल्दे दिन से जैर उसके पश्चात प्रत्येक वर्ष में उसी दिन देय होती।
Note - The fees for renewal of this patent, if it is to be maintained, will fall / has fallen due on 1st day of October 2023 and on the same day in every year thereafter.

पेटेंट नियंत्रक Controller of Patents

पेटेंट नियंत्रक
Controller of Patent

Controller of Patients

पेटेंट नियंत्रक Controller of Patents



संख्या No 2044180443



पेटेंट कार्यालय, भारत सरकार **The Patent Office, Government Of India**
पेटेंट प्रमाण पत्र | **Patent Certificate**

(पेटेंट नियमकालीन का नियम 74)

(Rule 74 of The Patents Rules)

पेटेंट सं. / Patent No. : 516697
आवेदन सं. / Application No. : 202141052733
फाइल करने की तारीख / Date of Filing : 17/11/2021
पेटेंटी / Patentee : Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology
आविष्कारकों का नाम /Name of Inventor(s) : 1.R.Prasanna 2.Dr.N.Masoodhu Banu 3.Dr.S.Sivaperumal 4.R.Rachel Jeeva Light

प्रमाणित किया जाता है कि पेटेंटी को, उपरोक्त आवेदन ने यद्यप्रकारित *A Compact Unidirectional Graphene based Array antenna with Efficient Phase Optimized feeding structure* नामक आविष्कार के लिए, पेटेंट अधिनियम, 1970 के उपर्योगी के अनुसार ज्ञान लारीक नवम्बर 2021 के समहारे दिन से बीत वर्ष की अवधि के लिए पेटेंट अनुदाता किया गया है।

It is hereby certified that a patent has been granted to the patentee for an invention entitled *A Compact Unidirectional Graphene based Array antenna with Efficient Phase Optimized feeding structure* as disclosed in the above mentioned application for the term of 20 years from the 17th day of November 2021 in accordance with the provisions of the Patents Act,1970.



अनुदाता की तिथि : 28/02/2024
Date of Grant :

कंट्रोलर ने दर्ज किया
Controller of Patents

नोट - इस पत्र के नवीनीकरण के लिए विद्यमान वर्ष की दूसरी तिथि तक या तो ज्ञान लारीक वर्ष की दूसरी तिथि तक दर्ज किया जाना चाहिए। यदि इस पत्र का नवीनीकरण वर्ष 2023 के दूसरी तिथि तक नहीं किया जाता तो, यह पत्र 17th नवम्बर 2023 की दूसरी तिथि तक वापसी की जानी चाहिए।

Research Proposals Submitted

Total Amount – Rs. 2,50,08,141/-

S. No	Name of the Investigator	Funding Agency	Funding Scheme & Year of Submission	Amount (Rs.)
1	PI: Dr.N.M.Masoodhu Banu & Co-PI: Dr.Thiyam Deepa Beeta	SERB	POWER & 2024	Rs. 29,98,640
2	PI: Dr. Thiyam Deepa Beeta Co-PI: Dr. N. M. Masoodhu Banu	SERB	SURE & 2023	Rs. 28,90,707
3	PI: Dr. Saranya G Co-PI: Dr. Thiyam Deepa Beeta & Ms. R. Shelishiyah	SERB	POWER & 2024	Rs. 18,66,305
4	PI: Dr.E.Madeshwari Co-PI: Dr. Monisha Sampath	SERB	POWER & 2024	Rs. 28,86,840
5	PI: Dr. A. Paramasivam, Co-PIs: Dr. R. Dhanaraj, Dr. C. Emmanuel & Dr. S. Srinivas	DST	TIDE & 2023	Rs. 94,81,920
6	PI: Dr. A. Paramasivam, Co-PIs: Dr. R. Dhanaraj & Dr. S. Prashanth	ICSSR	MAJOR & 2023	Rs. 24,28,000
7	PI: Dr. Priya R A Co-PI: Dr. S.Hema	TNSCST	SCIENCE AND TECHNOLOGY PROJECT SCHEME & 2023	Rs. 3,32,000
8	PI: Dr. Chinnathambi Co-PI: Dr.M.Muthalakshmi	SERB	SURE & 2023	Rs. 17,00,000
9	PI: Dr.J S S Allwin Ebinesar Co-PI: Dr.M.Muthalakshmi	TNSCST	SCIENCE AND TECHNOLOGY PROJECT SCHEME & 2023	Rs. 4,23,729

Research Fund/Grant



**3 Faculty Members have received
SEED Grant worth of Rs. 5,48,000/-**



- Dr. M. Muthalakshmi (TTS3373)
- Assistant Professor
- Amount Sanctioned - Rs. 1,98,000



- Dr. A. Paramasivam (TTS3273)
- Assistant Professor
- Amount Sanctioned - Rs. 2.00,000



- Dr. E. Madeshwari (TTS3681)
- Assistant Professor
- Amount Sanctioned - Rs. 1,50,000

Research Development Fund



2 Faculty Members have received **Research Development Fund** worth of **Rs. 1,00,000/-** for having good IF, Q1 and/or high number of Indexed Journal Publications



Dr. A. Paramasivam
(TTS3273)

Assistant Professor
Biomedical Engineering

Amount Sanctioned –

Rs. 50,000 /-

Total Publications – 9

IF (CY: 2023) – 5

Dr. K. Ganesh
(TTS284)

Assistant Professor
Biomedical Engineering

Amount Sanctioned –

Rs. 50,000 /-

Q1 Publications – 9

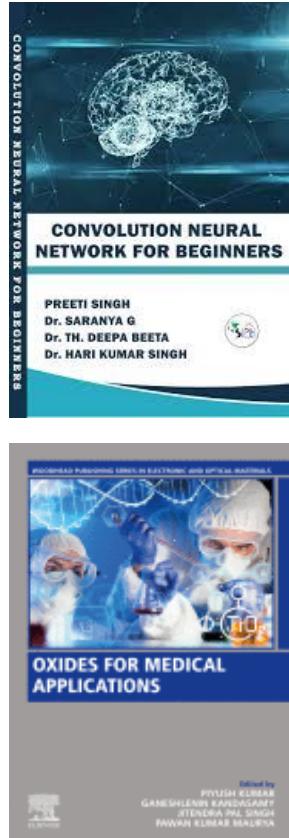
IF (CY: 2023) – 5

Book Publications

Dr. G. Saranya
TTS2721 /
Assoc. Professor
Biomedical Engineering

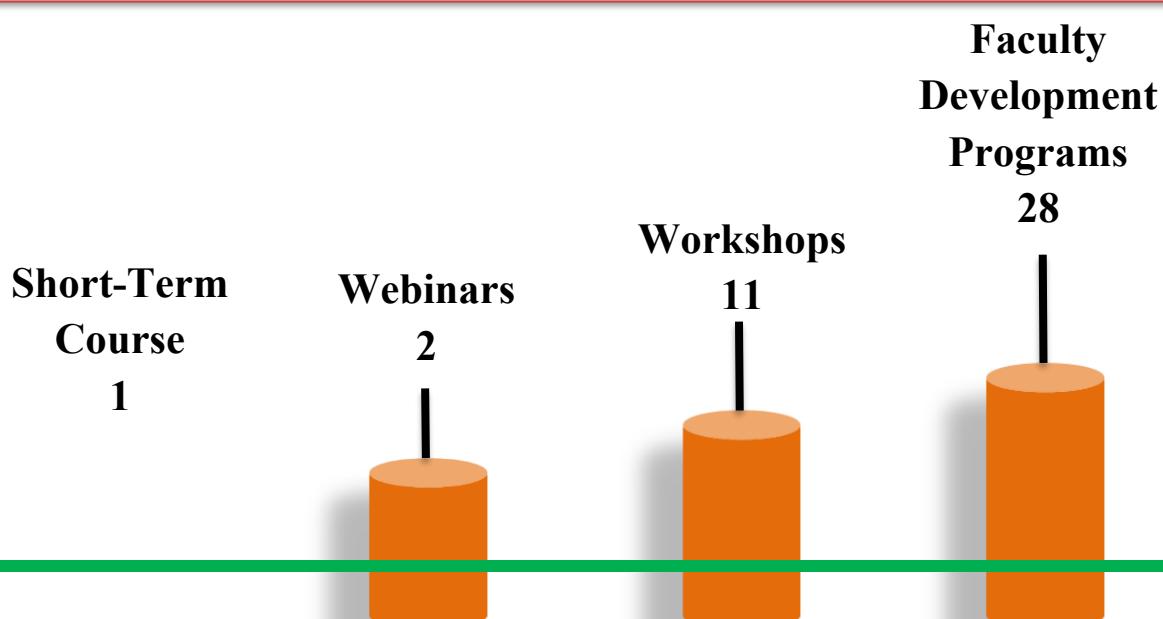
Dr. Thiyam Deepa Beta
TTS2872 /
Assoc. Professor
Biomedical Engineering

Dr. K. Ganeshlenin
TTS2843 /
Assoc. Professor
Biomedical Engineering



3 Faculty Members have published 2 Books with National & International Publishers

Courses/Webinars/Workshops/FDPs participated by Faculties

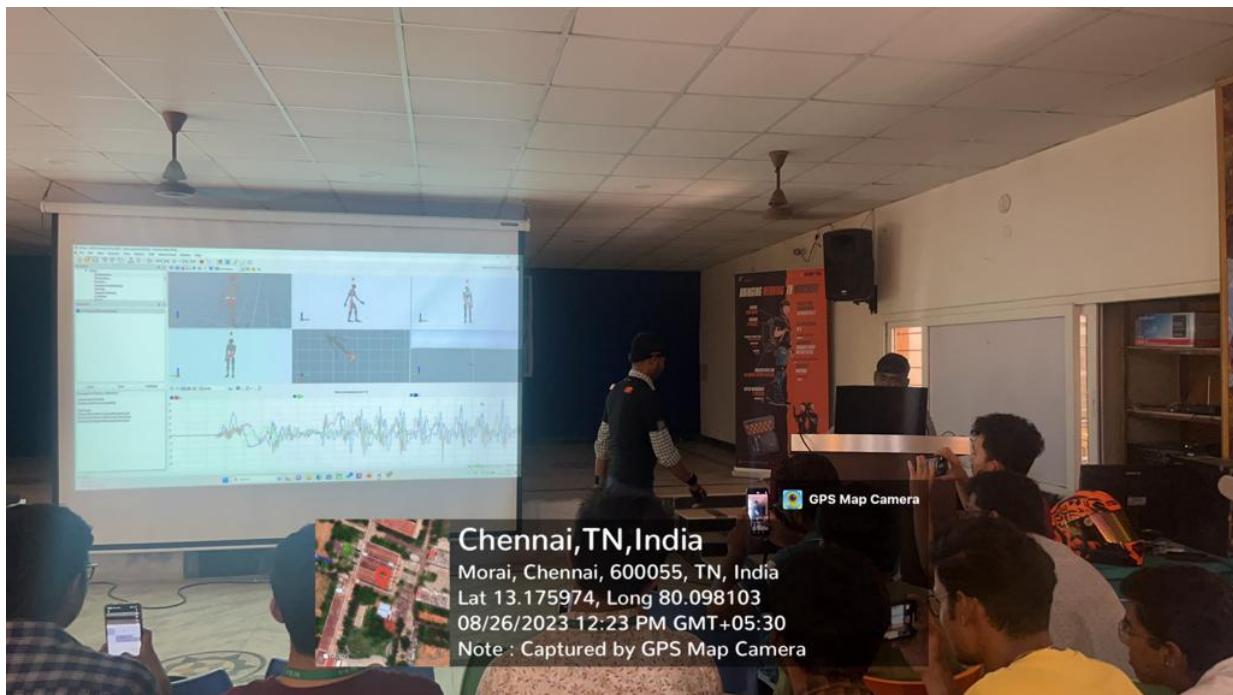


Programs/Events Organized by the Department of Biomedical

S. No.	Name of the Event	Workshops/Courses/ Technical Events/ Hospital Visits/ FDPs	Event Dates
1	Application of Biomechanics in Ergonomics	Faculty & Students Workshop	24th - 25th August, 2023
2	Biomedical Engineers Career in Advanced World	Guest Lecture	22nd January, 2024
3	Hands-on Training on Respiratory Care Biomedical Devices	Students Workshop	8th - 9th February, 2024
4	Geospatial Modeling in Precision Agriculture and plant Science	Industry Higher Learning Course	9th - 11th March, 2024
6	Rado lab visit	Hospital Lab visit	19th March, 2024
7	RoomScape	Technical Event for Lavaza	21st March, 2024
8	Recent Research Trends in Biomedical Engineering	Faculty Development Program (FDP)	11th - 15th March, 2024

Workshop on Application of Biomechanics in Ergonomics

(24th - 25th August, 2023)



Hands-on Training on Respiratory Care Biomedical Devices

(8th - 9th February, 2024)





STUDENT ACCOMPLISHMENTS

S. No	VTU NO	Name of the Student	Some Notable Achievements Details
1	VTU12076	Kaushal Mayur M	2 nd prize in paper presentation (QUINTESSENCE 2024) at SRM Easwari Engineering College
2	VTU16957	Aman Mohammed Basheer	1 st prize in BIOCONNECTION (ASKLEPIUS'23) at Velammal Institute of Technology
3	VTU21477	Smriti Ghimire	2 nd prize in paper presentation (TRIDENT'24) at Velammal Institute of Technology,
4	VTU23890	Naveena M	
5	VTU21502	J. S. Misbaah Malik	

6	VTU21985	Keerthi Varshini S	Thiruvallur
7	VTU21373	Sameera Farhat A	3 rd prize in a public speaking contest (VelTech Xtreme) at Veltech university
8	VTU23548	Ashwin Manoj	Published paper in Engineering Proceeding Journal, 2023, 58, 33.10.3390/ecsa-10-16253
9	VTU18106	Pittu Pavan Sai Kiran Reddy	Published paper in Engineering Proceeding Journal, 2023, 58(1), 50.10.3390/ecsa-10-16002

Students Published – 13 (Scopus Articles)
& 13 (Conferences Papers)



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Recognised as
CATEGORY-1
DEEMED TO BE UNIVERSITY
by the
UGC University Grants
Commission

OFFICE OF
CAMPUS TO CORPORATE

Xtreme | March - 2024

A public speaking contest

Congratulations!
WINNERS



1st PRIZE
Rs. 5000 /-

ROSHEEGA. P. K
VTU21433
2nd yr - IT



2nd PRIZE
Rs. 3000 /-

B. BHUVANESH
VTU25718
1st yr - CSE



3rd PRIZE
Rs. 2000 /-

SAMEERA FARHAT. A
VTU21373
2nd yr - BME



Abroad Internships

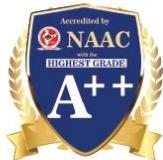


10 Students

S. NO.	VTU NO.	STUDENT NAME	INTERNATIONAL INSTITUTES	INTERNSHIP DURATION
1	12076	Kaushal Mayur M	Ming Chi University of Technology, Taiwan	September 2023 To January 2024
2	15973	Shanmathi	National Chung Cheng University, Taiwan	September 2023 To February 2024
3	18106	Pittu Pavan Sai Kiran Reddy	National Chung Hsing University, Taiwan	February 2024 To June 2024
4	18728	Devanand kumar sah	National Innovation Center, Taiwan	September 2023 To May 2024
5	16805	Dhiya Sabu	Ming Chi University of Technology, Taiwan	September 2023 To January 2024
6	12390	Abimanyu	National Chung Cheng University, Taiwan	September 2023 to February 2024
7	18108	Bidheyak Pokharel	National Innovation Center, Taiwan	September 2023 To May 2024
8	18655	Sachin Devkota	Riga Technical University, Latvia	January 2024 To June 2024
9	18647	Dikendra Baduwal	Bioinformatics institute, A*STAR, Singapore	July 2023 To January 2024
10	16957	Aman Mohammed Basheer	Ming Chi University of Science & Technology, Taiwan	September 2023 To January 2024



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Office of International Relations....!!!

Congratulations...

Batch:
2020-2024



Semester Abroad
Program

Mr. Sachin Devkota
VTU 18655 / Biomed

**Research Work as
Final Year Project Work**

Period of Internship
Jan 2024 - June 2024



Latvia

Tollfree
1800 212 7669



Website
www.veltech.edu.in

No.42, Avadi - Vel Tech
Road, Vel Nagar, Avadi,
Chennai - 600 062

Placements



Four students who have opted for placements are placed in Core & Other Companies



episource



Mu Sigma
DO THE MATH





Vel Tech

Rangarajan Dr. Sagunthala R&D Institute of Science and Technology

(Deemed to be University Estd. u/s 3 of UGC Act, 1956)

CONTACT US:

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Tamil Nadu, India

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