

2018-19

# BIOBEADS



**DEPARTMENT NEWSLETTER**  
**DEPARTMENT OF BIOTECHNOLOGY**  
**SAHRDAYA COLLEGE OF ENGINEERING**  
**AND TECHNOLOGY, KODAKARA**

## INSTITUTE VISION

To train the youth to be the leaders of tomorrow with apt skills, deep rooted sense of social responsibility, strong ethical values and with a global outlook to face the challenges of changing world.

## INSTITUTE MISSION

With a high caliber faculty and an excellent infrastructure, we promote academic excellence, absolute discipline and sound practical exposure.

## DEPARTMENT VISION

To be a national centre of excellence in Biosciences and Bioengineering.

## DEPARTMENT MISSION

1. Educating the next generation of engineers with a continual relevant curriculum that will teach them to integrate biological sciences with engineering fundamentals that can make, model and manipulate biological systems for industrial applicability.
2. The department will research and develop new knowledge at the interface of engineering and biology that is industrially and socially relevant and looks at sustainability.
3. Train leaders who value professional ethics and realize the need for societal contribution and environmental sustainability in their work.

## PROGRAM SPECIFIC OUTCOMES

1. Able to measure, model and manipulate properties of biological systems at the cellular and molecular level so as to produce sustainable bio-products that address environmental and ethical standards.
2. Able to formulate and execute quantitative and design- oriented analysis of biological systems with modern tools and techniques and sustain a desire for learning and research that generates new knowledge at the interface of engineering and biology.
3. Transform as socially relevant biological engineers having an entrepreneurial spirit and a professional outlook that would enable them to work as a part of a team in an industrial or research set up.

## PROGRAM EDUCATIONAL OBJECTIVES

1. To be equipped with the engineering skills and technical concepts enabling them to take up careers in Biotechnology and allied fields globally.
2. To instill the passion for lifelong learning scientific discovery, allowing them to conduct research, communicate and innovate technologies keeping them motivated to take research and higher education.
3. To inculcate entrepreneurial and techno management skills along with professional and ethical responsibility empowering them to be responsible and socially aware citizens.





## DEPARTMENT ACTIVITIES

### INAUGURATION OF BRSI INSTITUTE CHAPTER

Biotech Research Society, India Institute Chapter was inaugurated on September 15th, 2018. The programme was inaugurated by Dr. Deepthy Menon, Professor, Centre for Nanosciences and Molecular Medicine, Amritha Vishwa Vidyapeetham, Kochi. She also delivered a technical talk on 'Nanoparticles for Drug Delivery'. The Department Newsletter 'BIOBEADS 2018' was released by Rev Fr. George Pareman, which was received by Dr Sudha George Valavi, Joint Director. Dr Nixon Kuruvila, Principal felicitated addressed the gathering.



### DR. GEORGE THOTTAPPILLY MEMORIAL LECTURE



The second memorial lecture in the name of our former Dean Dr. George Thottappilly was organised on 11th April 2019 at 10.00am. Dr. M R N Murthy from IISc, Bangalore delivered the oration on 'Small but not simple, portrait of an virus'

### INAUGURATION OF AGAPPE INNOVATION HUB AND TRAINING



The Agappe team addressed the 2016 batch students and conducted a technical test on November 7th, 2018 for the training sessions. Sixteen students were selected from S5 BTE for the hands on training in the Agappe Innovation Hub inaugurated on November 28th, 2018.

### WORKSHOP

Department of Biotechnology Engineering in collaboration with The Biotech Research Society, India is organized a three day workshop on "MODERN TOOLS IN BIOINFORMATICS" from November 1st to 3rd, 2018 in the Accenture Lab of Bio Block. The sessions on the November 1st and 2nd were handled by Ms Amitha Joy and Dr Vipin Thomas, University of Kerala.

A one day workshop on 'Technical paper writing and Statistical Analysis' was conducted for S6 & S8 BT students on 16th March, 2019. The session was handled by Dr. Chandrasekhar Bhatt, Senior Scientist from NIIST and Dr. Dhanya Gangadharan.

### INVITED TALKS

Dr. Girinandan Gopal Assistant Professor, Department of Chemical Engineering, Saint Git's College, Kottayam gave a session on 'Bioreactor Design and Analysis for 2017 and 2016 Batch of students.







In connection with International Women's Day on March 8th, Ms. Ardra Chandramouli, CEO of AEKA Biochemicals, delivered a talk and interacted with students of S4 and S6 BT.

## BEATS – ASSOCIATION EVENTS

- A training program for S5 and S3 students (10 Each) was arranged on 28th September, 2018 on INDESIGN SOFTWARE. The session was handled by Mr Atul Balachander of S7
- In connection with the world food day, on Oct 16th, BEATS organized a poster presentation competition, based on the theme 'Famine: food scarcity'.
- The compilation of seminar reports of 2014 and 2015 batch of students 'BIOQUEST' was released.
- In connection with National Science day on 28th February, BEATS organized a cartoon making competition on the theme 'Science for people; People for science', on 1st March, 2019.

## ALUMNI INTERACTION

- Mr. Sreekumar, alumnus from 2013-17 batch, interacted with S6 BT students on 11th March, 2019. He is currently pursuing MS in Biotechnology from Warwick University, England.
- Ms. Manasa, Project Management Executive of Augene Discovery Technologies and Ms. Jasmine Habeeb, Junior Research Fellow of Central University, both our alumni from 2013-17 batch, interacted with S4 & S6 students.
- Mr Nevin Koshy (Partner, United Trademark and Patent Services) attended the Dr George Thottappily lecture on April 11th and interacted with our students.



## STUDENT ACHIEVEMENTS

### PROJECT AWARDS

- A team from S5 BT ( Mr. Najeeb Bin Haneef O, Mr. Bristo Lorence, Mr. Britto Lorence, Mr. Aakash P & Mr. Amal Jose Thomas) won the 'Best Innovative Product' award for their product 'B-Lite' at SRM University on 26th September.
- A team from S7 BT (Mr. Siby Issac, Mr. Mame Bajo, Mr. Abhilash MK, Mr. Niranjan Sooraj & Mr. Achyuthanand) won the 3rd prize in RISC 2018, a competition conducted by NIRDPR.
- Students of S5 BT, Najeeb Bin Haneef O, Britto Lorence, Bristo Lorence, Aakash P, Amal Jose Thomas, won the best innovative product award for their product 'B-lite' at SRM University Chennai on 26th September, 2018.





• A team from S7 BT (Ms. Thamanna Musthafa, Ms. Libna Lawrance, Ms. Sherin Shams, Ms. Jain Rose) participated in the Regional Convention of the AICTE-ECI-ISTE Chhatra Vishwakarma Awards 2018, held at Acharya Institute Of Technology, Bangalore on 31st October 2018. The team got selected for the National Level Competition which will be held at New Delhi, in January 2019.



• A team from S5 BT (Ms. Varsha J and Sujitha Unnikrishnan) participated in the grand finale of Startup India Kerala Yatra held at Technopark, Trivandrum on 26th and 27th November, 2018 and won the 'Hero of the Bootcamp' award.



• A team from S3 BT (Milan Maria Sajeev, Merrin John, Megha Vincent) participated in Srishti 2019 conducted in Saintgits engineering college, Kottayam for their project CaRBokem: An innovative filter to treat industrial water effluents, under the guidance of Dr. Uma Krishnakumar.

## PATENTS FILED

Aswin Sasi, Hilal Aboobecker, Haritha R, Anna Jelson of S7 BT under the guidance of Dr. Dhanya Gangadharan filed provisional patent for their project 'Biome Organic Air Purifier using Arthrospira Platensis for air purification' on 12th December, 2018 (CBR number 35620).

Sherin Shams, Libna Lawrence, Jain Rose, Thamanna participated and won the prize at the national level competition held at AICTE, New Delhi on January 22nd, 2019 for their project 'BIOFIL'. The same team registered for provisional patent on 31st January, 2019 (CBR no. 3295).

Students of S7 BT, K Achyuthanand, Gopika Menon in coordination with students of S7 ECE dept. registered for provisional patent for their project 'Marijuana Detector'. The project was guided by Dr. Dhanya Gangadharan, faculty of BT dept. and Ms. Ambily Francis, faculty of ECE dept.

## PAPER PRESENTATION AND PROJECT PARTICIPATION

The project BIOME team comprising of Aswin Sasi, Hilal Aboobecker, Haritha R and Anna Jelson of 2015 batch have been selected to the top 60 projects to present their idea before the National Judging event scheduled on 1st December 2018 at Thiruvananthapuram.

Neena T K and Britto Lorence participated in an event, on 17th September, 2018 conducted by EEE on the topic 'Predict the Future 2075' in connection with Engineer's Day.





Najeeb Bin Haneef O, 3rd year BT student participated in UN Conference on Global Goals Model at Kuala Lumpur, Malaysia from January 11th - 14th, 2019.



Students of S6 BT Najeeb Bin Haneef O, Britto Lorence, Bristo Lorence, Aakash P, Chippy Joy, Amal Jose Thomas, Rakesh V R, Christine Paul, Abine-Johny participated in MedInspire 2019, a multi-disciplinary summit held at Dr. D Y Patil University, Mumbai from 14th – 17th February, 2019.



Najeeb Bin Haneef O, of S6 BT, delivered a talk at METS college, Mala. He is an entrepreneur and Director of Zcorp Organics Private Ltd.

## TRAINING, INTERNSHIPS, COURSES & WORKSHOP

**NPTEL exams: Student achievements** Six students of S5 BT, Rose Maria George, Varsha J, Sujitha Unnikrishnan, Ann Mariya Joshy, Athulya Martin and Abine cleared NPTEL exams in various courses (July-Oct, 2018).

Fifteen students of S7 BT, Sona Rafeek, Catherine Augustine, Sachin Thomas, Gayathri Rajeev and Anna Jelson, Christy Davy, Vidhya Vijayan, Ann Mariya Benny, Dona Joseph, Jesna James, Vidhya Vijayan, Vaishnavi V Sunil, Mila Wilson, Greena Joshy, Mary Treasa appeared and cleared various courses from July-Oct, 2018.

## TRAINING

Students of S5 BT underwent internship at Pasteur Institute of India, Coonoor, Ooty for 7 days in the month of July, 2018.

Agappe diagnostics selected 15 students from S5 BT for their one and half year training program, which started on 22nd Nov, 2018.



## UNIVERSITY RESULTS

The seventh semester results were announced and Gayathry Rajeev was the topper (SGPA 9.11).

The fifth semester results were announced and Nimi James became the topper (SGPA 8.83).

The third semester results were announced and Treasa Rejo became the topper with (SGPA 9.31).





## PLACEMENTS AND HIGHER STUDIES

On a pool drive conducted by Focus Edumatics on 11th March, 7 students from S8 BT were placed. The students are Sandra Mariam Kurian, Dona Joseph, Namitha Nirjathan, Catherine Augustine, Anna Jelson, Scintilla Thomas and Sreya Sreekumar.

GATE results were announced on March 15th. 4 students from S8 BT qualified the exams. The students are Sachin Thomas (rank: 480), Gayathri Rajeev (rank: 516), AswinSasi(rank:1082), K Achyuthanand(rank: 516).

Mr. Sachin Thomas has joined IIT Guwahati and Mr Aswin Sasi joined IIT Jodhpur.

## FACULTY ACHIEVEMENTS

- Ms Salini has successfully registered for PhD in CUSAT
- Dr. Leon Ittiachen served as a resource person at Manipal Institute of technology and St.Joseph's college, Irinjalakuda
- Ms Amitha Joy successfully completed her PhD open defence in Bharathiar University
- Ms Sumi Maria Babu registered for full time PhD in KTU under the guidance of Dr Leon Ittiachen.
- Dr. Ambili Mechoor, HOD of BT dept & Dr Dhanya Gangadharan., was the invited speaker and participant at National Seminar on 'Recent Biochemical approaches in therapeutics- V' from 23rd-25th January, 2019 at Department of Biochemistry, University of Kerala.
- Dr. Ambili Mechoor, HOD of BT dept., was the invited speaker and participant at National Conference on 'Biochemistry: Transcending and Integrating Life Sciences (NCBTIL)' on 17th & 18th January, 2019 at Kristu Jayanthi College, Bangalore.

## FACULTY PUBLICATION

Ranimol G, Thulasi Venugopal,Shiji Gopalakrishnan, Swetha Sunkar. "Production of laccase from *Trichoderma harzianum* and its application in dye decolourisation" Biocatalysis and Agricultural Biotechnology 16(2018) 400-404.

Dr. Amitha Joy published a book titles 'Phytate to kill cancer: Interactions of phytic acid in cancer targets' in 2018.

## FACULTY TRAINING/WORKSHOP

Ms Salini and Dr Uma Krishnakumar attended a FDP on 'Advanced Techniques in Wastewater Treatment' from 2nd-7th July, at NIT Calicut.

Ms. Salini P.J, Mr.Francis John.V, Dr.Uma Krishnakumar and Ms. Smeera Thomas attended an FDP in GEC, Thrissur on the topic "Research Perspectives in Emerging Areas of Industrial Safety and Environmental Engineering " from 03 to 07 Dec 2018.

Ms. Marria C Cyriac attended a "National Seminar on Imperatives for Managing Plastic Waste" Organized by SCMS School of Technology & Management (SSTM) Co-sponsored by Kerala State Council for Science, Technology & Environment (KSCSTE )on 12th October 2018 At SCMS Campus.

Dr. Ambili Mechoor attended a training program on 'Processing and Engineering of Drugs & Pharmaceuticals' from 10th -14th December, 2018 at GEC, Thrissur.

## INDUSTRIAL VISIT

Students of S8 BT, visited two industries on 1st March, 2019- Labland Biotech, Mysore and Karnataka Govt. Silk Factory, Bettadpura, Mysore.





## SPORTS ARTS

• Anmariya Benny, Dona Joseph, Sandra Marium Kurien, Namitha Nirjathan and Christy Davy - Of 2015 batch participated in KTU E-Zone level basketball competition held at GEC, Thrissur (2/10/2018 and 3/10/2018) secured 1st position.

• They also participated in Inter-zone basketball competition held at Mohandas College of Engineering and technology, Trivandrum (10/10/2018 and 11/10/2018)

• Anjana A Nair, Keerthana Anil, Sandra Anand, Swetha K - S7 BT, Jewel Mathew, Thamanna K of 2015 batch participated in KTU E-Zone level volleyball competition held at GEC, Thrissur (12/10/2018) secured 1st Runner-up position. They also participated in Inter-zone volleyball competition held at Mar Athanasius College of Engineering and technology, Kothamangalam (30/10/2018).

• Sports day was conducted on 13th October, 2018. Ann Mariya Benny, Mary Tania Christopher, Deepika V and Sana Aboobacker secured 3rd prize in 4x100 m relay. Pritty Susan Issac secured 3rd prize in Discus throw. Ann Mariya Benny secured 1st prize in triple jump, 2nd prize in 200m running race and 3rd prize in long jump.

• BEATS secured the overall championship in Arts, which included Fine arts and Literary events, with a score of 161 points.

## SOCIAL EXTENSION PROGRAMS

• Neena T K of S5 BT won the second prize in Malayalam essay writing competition on June 5th (World Environment Day). The competition was conducted by Ahalia Health Centre for Energy and Environment, based on the topic 'Beat Plastic Pollution'. Neena T K of S5 BT, received the 'Best Young Social Worker' award at the Mundathikode Grama Panchayat sponsored by PSC bank.

• Ms P Praveena and Dr Dhanya Gangadharan addressed the XII standard students of St Mary's HSS, Irinjalakuda on the topic Waste Management as a part of Science popularisation program on November 2nd, 2018.

• A talk on "Biotechnology and health Industry" delivered by Dr Dhanya Gangadharan was arranged for the students of XI and XII standard of Little Flower Convent, Irinjalakuda on November 17th, 2018 as a part of the Science popularization program.

## ENTREPRENEURIAL INITIATIVES

Najeeb Bin Haneef O is the CEO and co-founder of Zcorp Pvt Ltd. Zcorp Pvt. Ltd. is a startup established with the help of ICAR-CIFT in their ABI incubator in Kochi. His company primarily develops and markets a one of a kind product which is spirulina and seaweed biscuits. The prized product of the company, B-Lite cookies will take over the nearby markets within the coming weeks. These two products, his first ever product, was launched at the ICAR conference held in New Delhi on October 12th 2018.

## ALUMNI IN NEWS



Ms Sina Antony (2002 Batch) has joined Dasman Diabetes Institute, Kuwait (affiliated to University of Helsinki, Finland) as Research Associate and registered for PhD.





# PHOTO GALLERY



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