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BAPUJI INSTITUTE OF ENGINEERING AND TECHNOLOGY

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BIOLIT

A Biannual Newsletter of Biotechnology Department

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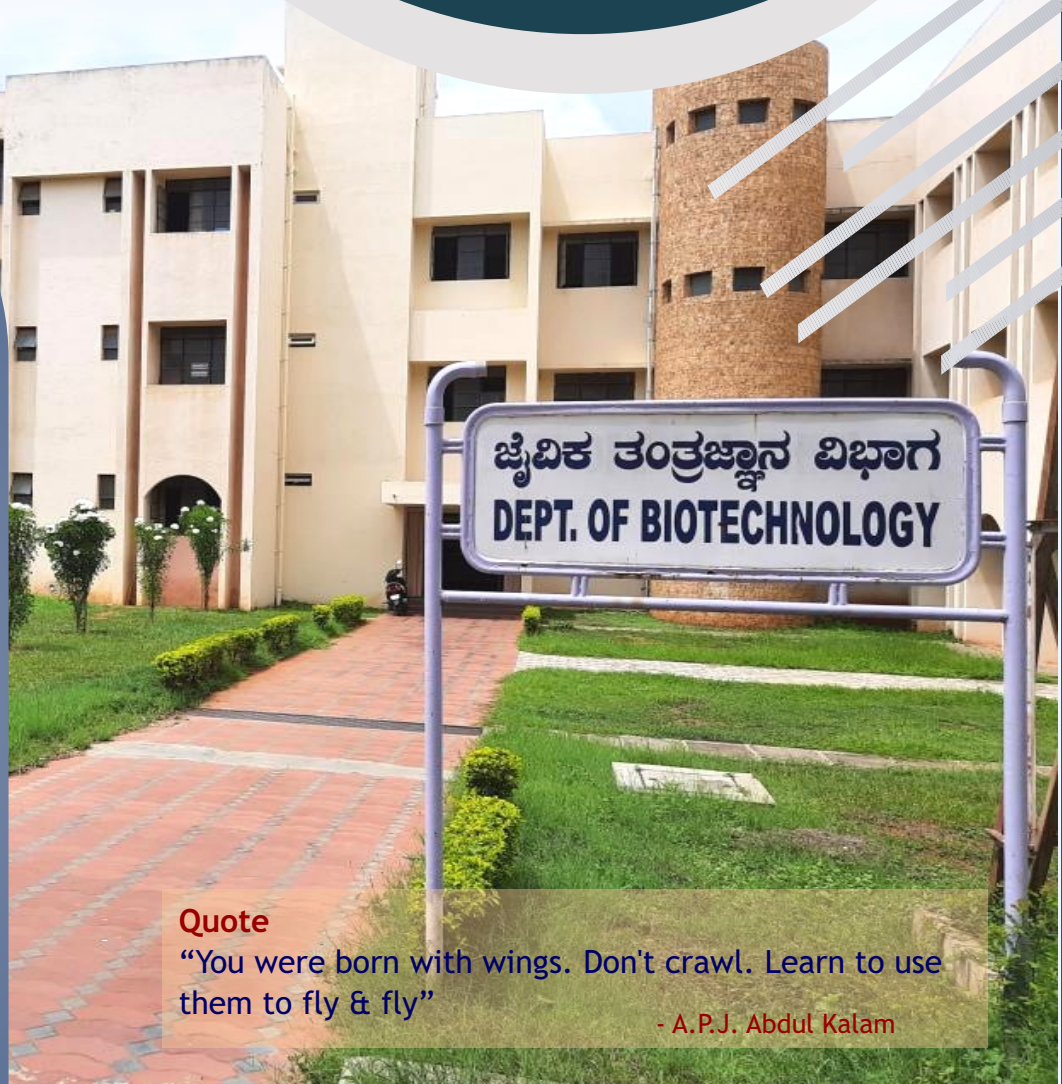
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Quote

“You were born with wings. Don't crawl. Learn to use them to fly & fly”

- A.P.J. Abdul Kalam

Content

- ✓ Departmental Activities
- ✓ Student Achievements / Activities
- ✓ Faculty Achievements / Activities
- ✓ Articles / News



From the HOD's Desk

Greeting!! Indeed it gives me immense pleasure to share with you all readers that our department has been through a range of activities and accomplishments. Despite the state-of-the-art infrastructure with well-developed laboratories, the Department has well qualified and dedicated faculty to impart quality engineering education through sound theoretical knowledge, hands on laboratory, exposing students to recent technologies by visiting industries and expert talks as well as instilling communication skills through Inter and intra departmental activities. This Newsletter is aimed at fostering current and inclusive research and industry partners, our alumni and friends, as well as department faculty and assistant staff members, past and present. We aim to keep our stakeholders updated on our teaching and research activities and advances, as well as student and academic achievements and showcase the best. We very much encourage all our stakeholders like members, students, alumni, parents and partners to keep in touch and share their news, their time and experience in the department, their career achievements and/or personal highlights with us and look forward for kind patronage to our newsletter in the future editions too.

I thank my team for their constant cooperation and support. We look forward for a fruitful year ahead. Thank you all...

Vision of the Department

- To impart quality education for translating knowledge to the widest domains and create distinctive knowledge assets
- To contribute in creating a pool of young engineers to meet the demands of industry and society, through excellence in technical education and research.

Mission of the Department

- To be an educational center of international excellence in broad based technical learning to help every learner to be successful
- To emphasis its foundational heritage in engineering education, facilitate interdisciplinary learning, foster research and produce graduates who are technologically astute, think critically and demonstrate proficiency.
- To empower the students with entrepreneurial and leadership competencies to unleash their potential towards nation building.

Choice Based Credit System(CBCS)

CHOICE BASED CREDIT SYSTEM (CBCS):

The CBCS provides an opportunity for the students to choose courses from the prescribed

courses comprising core, elective/minor or skill based courses. The courses can be evaluated

following the grading system, which is considered to be better than the conventional marks system. Therefore, it is necessary to introduce uniform grading system in the entire higher education in India. This will benefit the students to move across institutions within India to begin with and across countries. The uniform grading system will also enable potential employers in assessing the performance of the candidates. In order to bring uniformity in evaluation system and computation of the Cumulative Grade Point Average (CGPA) based on student's performance in examinations, the UGC has formulated the guidelines to be followed.

The choice based credit system not only offers opportunities and avenues to learn core subjects but also exploring additional avenues of learning beyond the core subjects for holistic development of an individual. The CBCS will undoubtedly facilitate us bench mark our courses with best international academic practices.

Advantages of the choice based credit system:

- Shift in focus from the teacher-centric to student-centric education.
- Student may undertake as many credits as they can cope with (without repeating all

courses in a given semester if they fail in one/more courses).

- CBCS allows students to choose inter-disciplinary, intra-disciplinary courses, skill oriented papers (even from other disciplines according to their learning needs, interests and aptitude) and more flexibility for students).
- CBCS makes education broad-based and at par with global standards. One can take credits by combining unique combinations. For example, Physics with Economics, Microbiology with Chemistry or Environment Science etc.
- CBCS offers flexibility for students to study at different times and at different institutions to complete one course (ease mobility of students). Credits earned at one institution can be transferred.

Disadvantages:

- Difficult to estimate the exact marks
- Workload of teachers may fluctuate
- Demand good infrastructure for dissemination of education.

Departmental Activities

Hands on workshop

The Department of Biotechnology organized one week hands-on workshop on “Trends in Biotechnology” during January 15th – 21st 2018.



Mr. Amith Gourav (Alumnus), senior Research Associate, Syngene International Ltd, Bangalore, inaugurated the hands workshop



Group Photo of Participants on one week hand-on workshop during 15th -21st Jan 2018

Training Program

The Department of Biotechnology organized one day Lecture Programme on “Strides in Biotechnology” for the students on 19th February 2018. In this programme a Panel discussion on “Scope and Career Opportunities in Biotechnology” was arranged exclusively for Pre-University students from different colleges in around Davangere.



Distinguished Panelist Dr. Nagendra Ningaraj, Dr. Anjali Apte Deshpande and Dr. Ramakrishnaiah for panel discussion on scope & career opportunities in Biotechnology



Panel discussion on Scope and Career opportunities in Biotechnology for Pre-University students

Brain storm Activity

- Brainstorm an Intra departmental debate event where two students from each semester will be the panelists and discussing for or against to the topic of debate. The topics of debate will be generally the present socio-scientific issues.
- The other aspect of Brainstorm is to improve communication skills and to inculcate life-long learning aspects of Outcome based education system.

Following are the list of topic were discussed in the Brain storm Debate activity

Date	Topic for Discussion
15-02-2018	Detention policy till class 9 should be there or not?
5-03-2018	Which one Brings Success In Life –Hard Work Or Intelligence?
20-03-2018	Should all drugs be legalized?
3-04-2018	Are single sex schools more effective than co-ed schools?
9-04-2018	Human gene editing Good or bad?
16-04-2018	Is it really worth to become a cash less economy?



Brainstorm- Debate event

Student achievements, activities and Placement Details for the 2017-18

Total 17 students were selected for different companies under campus recruitments.

- VEE Technologies 07
- Byjus 02
- AISSEL Technologies 02

- Pulses Technologies 03
- OMICS International 03

Did you know: it's possible to sneeze with your eyes open?

Like any reflex, the urge to close your eyes during a sneeze can be suppressed. And while you should cover your nose and mouth to help shield others from the full power of your sneeze, there's no need to worry about keeping your eyes closed. Your eyes have muscles holding them in place and are not solely kept in your head by your eyelids. The next time you feel a sneeze coming, you can attempt to keep your eyes open – without worrying about losing your eyeballs!

Students' participation in NCC



NCC cadet Kiran maddinmath 4th sem, got selected for the KarGoa selection SSB training held at Gwalior Madhya Pradesh and she successfully completed B & C certificate exam.

NCC cadet Sushmita Jois, 4th sem, have been participated in basic mountaineering course in Abvimas at Manali and successfully she completed B & C certificate exam



NCC cadet Ganavi D, 4th sem of rank SARGENT has completed A B & C certificate exam in NCC & represented in National integration Camp held at KODUGU and also attended officer attachment training camp in Bangalore.

NCC cadet Shashirekha R ,4th sem, have been participated in basic mountaineering course in Abvimas at Manali and also she successfully completed B & C certificate exam.



Student's Project

- Mr. Deepak G, Mr. Ramkishan A S, Ms. Monika Nagesh, Ms. Aishwarya P M and Ms. Sanchitha V Patil are involved in Academic Project entitled Preliminary investigation of Bioaerosols from atmosphere of Davangere city with particular reference to allergic infections in human under the guidance of Prof. Vinaya Kumar J and Dr. B.E. Rangaswamy with a grant of Rs. 20,000/- sanctioned by KSPCB, Davangere in the year 2017-18.
- Ms. Ranjana S, Ms. Rashmitha A S and Ms. Shweta S T are involved in Academic Project entitled "Production and Characterization of Microbial Dextran" under the guidance of Prof. Vanitha K P and Dr. B.E. Rangaswamy with a grant of Rs. 5000/- sanctioned by BIET Institute, Davangere in the year 2017-18.
- Ms. Namratha M, Ms. Pooja and Ms. Meghana B J are involved in KSCST project entitled "Development of biodegradable, cost effective, eco-friendly and sanitary napkins with deodorizing properties" under the Guidance of Dr. Manjunath NS & co-guide Dr. B.E. Rangaswamy with a grant of Rs. 6000/- sanctioned by KSCST in the year 2017-18.

List of Toppers for odd semester

- Ms. Rashmitha A S (4BD14BT013) -7th sem
- Mr. Diwakar S (4BD15BT024) -5th sem
- Ms. Aishwarya P M (4BD16BT005) -3rd sem

Faculty/Students' Achievements

- Indian Society for Technical Education, New Delhi, in its National convention organized in Kottayam during 27th -29th January 2018 has recognized Dr. B.E. Rangaswamy with Rajaram Babu Patil National award for his service towards Technical Education and Research.
- Prof. Vinay Kumar J, has been awarded inspiration medal for participation in the "PROF. P.H GREGORY CONTEST AWARD" competition of Indian

Aerobiological society India during Jan 2018.

- Smt. Yogitha Seema defended her Ph.D thesis entitled "Atmospheric Microbial diversity with particular reference to allergic pulmonary infections in Davangere" - under the guidance of Dr. B.E. Rangaswamy, Prof & Head, Dept. Of Biotechnology held at VTU Regional Center, Bangalore on 8th May 201
- Dr. B.E Rangaswamy has been invited to participate in the 29th Midyear Meeting of Indian Academy of Sciences held at Senate Bhavan, Manasa Gangothri, and Mysore on 28th -29th June 2018.
- Dr. B.E. Rangaswamy has been invited to give away "Young Scientist Award 2017-18" in a programme organized by Dept. of Science & Technology in association with PU Board, Karnataka and Karnataka Rajya Vijnana Parishat, Davangere held at Anmol Public School, Shiramagondanahalli, Davangere on 8th July 2018.

Why do we get Goosebumps?

There is hormone called adrenaline which is often released when we feel cold or if we are under stress and feel strong emotions such as anger, fear, excitement it contracts the muscle called arrector pili in the skin that is attached to the hair follicles hence pulling the hairs into upright position causing goosebumps.

Article/News

The Need to Make Food and Farming Toxin Free.

-Gourishankar Karoshi

Founder, yogi Farms Dharwad

Menstruation at the age of 8-10, grey hair at the age of 10-12, diabetic at the age of 15, cardiac arrest at the age of 25-30, ubiquitous cancer cases at all ages and traces of synthetic pesticide contaminants in human breast milk. These alarming situations, currently is the status of the society we live in. I am not sure if many still understand that these are the significant deviations that we need to pay attention to. Whilst few corporate firms affix the reason to polluted

environment, lifestyle, stress etc. But not many talk about the food that we consume. How can a kid of age 8-15 years be under stress or have a significantly deviated lifestyle? Unfortunately these impacts are contagious not just in the way that they impact each other but also the future generations.

With a little experience of 5 years in the milk business (dairy farming) my perception of food has been completely transformed. I can now understand that milk can be made from sugar, soda, shampoo, urea, vegetable oil, maida and at times with few synthetic chemicals. With few good friends in other food enterprises I also got the understanding of how oil, flour, honey, tea and even cereals and pulses are being adulterated. At times it is not just adulteration but a complete manufacturing from deadly synthetics like fevicryl for milk and paraffin (white oil) for oil.

While the toxic food dealt with its consequences pertinent directly to human health, the way the food is produced with hazardous chemical inputs has caused severe damages to the environment by depleting soil humus (or organic carbon) known for enhancing water holding capacity of soil and housing diverse micro flora and fauna, by contaminating water bodies including groundwater with hazardous synthetic chemicals, by contaminating air indirectly in terms of production houses, by increasing soil erosion and hence changing rain patterns and eventually causing global warming.

➤ Food & farming in today's world have so intriguingly disconnected that we care more about the 'things that we want' but not about the 'things we need'. This has painted the food with the color of money & economy so much so that We now get colored vegetables and fruits that 'look' fresh, vegetable that grow exponentially in matter of hours because of synthetic hormonal interferences, increased vegetable size but depleted nutritive value (refer National Institute of Nutrition reports).

With growing ailment cases at an alarming rate it is time that we realize on our disconnection with our food. Taste, packaging, brand and appealing appearances

have taken over the basic quality factor of food. The food industry now seems to have reached a stage of saying anything packaged and branded well should be good for your health. With ever increasing use of life threatening and carcinogenic inputs in farming the hope of getting pure food may appear to be a dream. Here are few takeaways for your try.

What an individual can do?

➤ Know your math? Yes, Mathematics can help you identify many cases of adulteration. Taking an example of groundnut oil, it typically takes 3 to 3.5 kg of groundnut seeds to make a liter of oil. While the average seed cost would be at Rs.100/kg, the oil cost should be around Rs. 250-300/L excluding the cost of seed cake. If it is so how are you getting it at mere Rs. 100-150/L at your market? A simple math in many such cases will assist you to find the quality of the product.

➤ Know your food and farmers! Questioning the source of the food will be a great initiative to start finding pure food. This should also help one understand the pain of a producer and also resolve pricing issues.

When was the last time we honestly wondered about the production cost of our food? Did we give it a thought at all? Better pricing may also encourage farmers to get you pure food.

➤ Visit farms and farmers in weekends with kids this might open doors to establish your lost connections and also help build relations of the next generation with their food. You will start cherishing mysteries of Mother Nature.

➤ Ask yourself a pragmatic question: Which is important between the two, whether 'how long we live' or 'how we live as long as we live'?

What can organizations do?

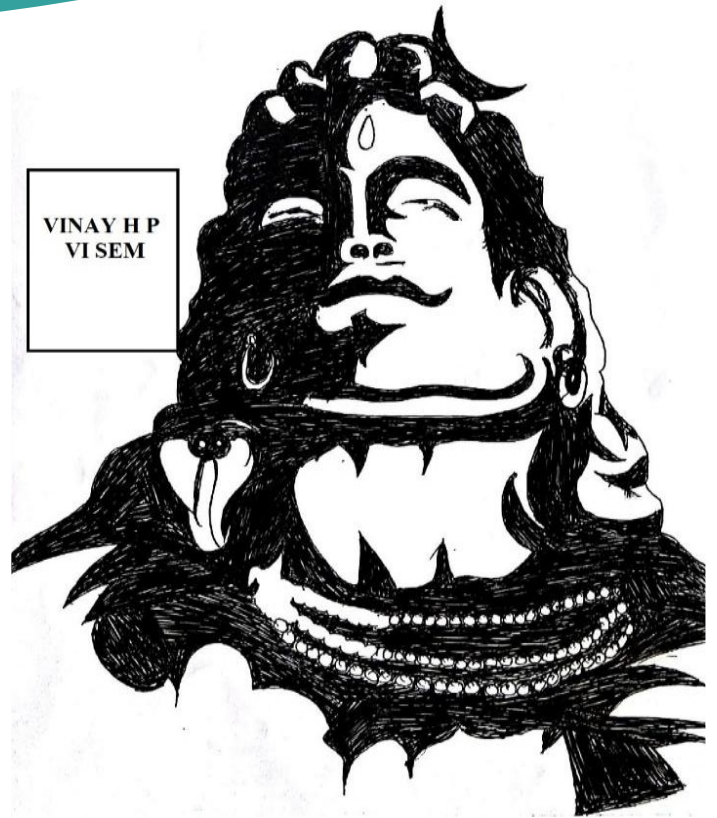
- Understand and promote food diversity
- Fight against food adulteration
- Encourage local diets

- Push for strong laws against adulteration and toxic soil inputs

What can entrepreneurs do?

- Develop safe and effective tools/products for farm inputs. Going further if one can develop formulae that a farmer can replicate at an individual level in his own farm. This will significantly reduce production cost and also the burden on environment.
- Identifying & promoting naturally available drought/disease/flood/salinity/pest resistant crop varieties instead of genetic modifications.
- Designing and developing ecofriendly operational machines, biofuels, efficient water usage technology, real time data analyzers and consultations etc.
- Build profound market for toxin free food.

So when are YOU starting?





Industry links with MOU's

- Cargill India Pvt.Ltd
- Synthite Industries *Ltd.*, Harihar
- Biozeen - Bangalore Biotech Labs PVT. Ltd, Bangalore.
- Central Dogma Pvt, Ltd, Pune.
- Skanda Life Sciences Private Limited, Bangalore.
- Shamanur Sugars Ltd, Davangere.
- M/S Indian Cane Power Ltd Unit: Samsons Distilleries, Davangere
- Davangere Sugars Co.Ltd, Davangere.
- Laxmi Chem Gen, Hyderabad.

Proposed activity of 2018-2019

- Biolit Forum Activity Inauguration & Welcome 3rd semester students.
- Brain Storm debate activity under Biolit Forum.
- Daily one hour Lecture series from each faculty members in the month of September
- 14th Conference of society of "Cytologists and Geneticists" in the month of March 2019



Group photo of Batch 2017-2018