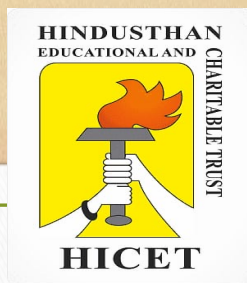


HINDUSTHAN

COLLEGE OF ENGINEERING AND TECHNOLOGY

(AN AUTONOMOUS INSTITUTION)



DEPARTMENT OF FOOD TECHNOLOGY

NEWSLETTER

VOLUME 1

JUNE '19 TO DEC '19



**“IF SCIENCE IS A MASTERPIECE
THEN FOOD IS IT'S TRUMP CARD”**

VISION OF THE DEPARTMENT

“To be an excellent department in training students to become professional Food Technologist who is technically capable of working in food operations sector and Discovering licensed food products which could Benefit the eco-friendly society”.

MISSION OF THE DEPARTMENT

- 1. To impart students with a vibrant technical and analytical skills.*
- 2. To provide students with leadership quality and also the knowledge to handle all the problems relating food industry.*
- 3. To develop the research and development activities of students to explore the quality.*

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SPECIAL LECTURES

- ❖ **Dr. Ramasamy**, Department of Agricultural Engineering, **Kalaingar Karunanidhi Institute of Technology**, has delivered a guest lecture on **“Recent developments in agricultural and food industries”** on **28th September 2019**.



Dr. Ramasamy Delivering the Lecture

STUEDNTS ACHIEVEMENT

- ❖ **C. Mohammed Roshan, Farsin Rasak, P. Muhammed, M.N. Muhammed Yazeen, Jahfar Majeed and E. M. Sajeed** of **II B. Tech Food Technology** have undergone internship program in **ORKID BAKES AND FOODS PRIVATE LTD.** During the period of **2nd December to 17th December 2019**.
- ❖ **Vishnu Raj** of **II B. Tech Food Technology** have undergone marketing internship program at **“UNITED BUSINESS”, Bangalore** during the period of **24th November 2019 to 23rd December 2019**.

- ❖ **M. Varnna Priya and R. S. Subhiksha** of II B. Tech Food Technology have participated and presented a paper in National level symposia on the topic of **“Traditional and Novel methods of Preservation”** at Paavai College of engineering on **20th September 2019.**



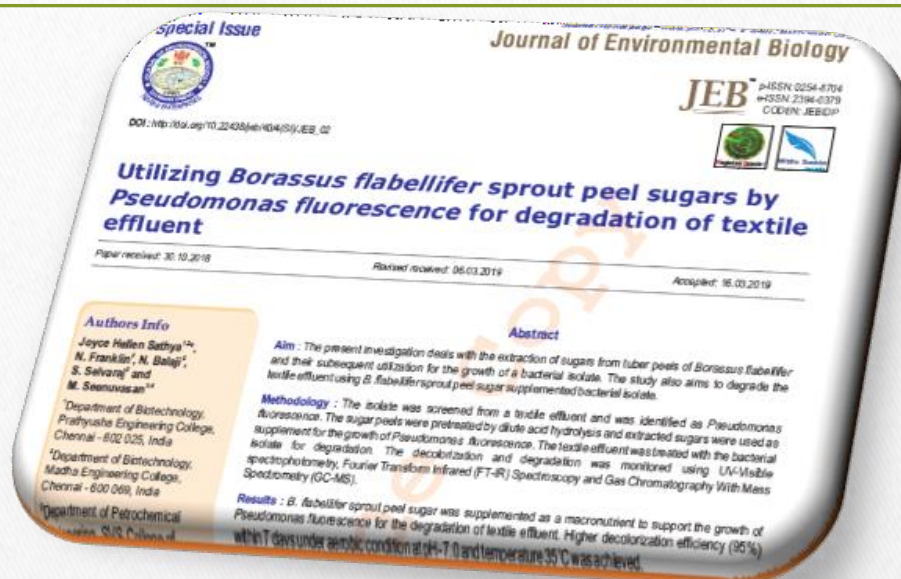
M. Varnna Priya and R. S. Subhiksha Presentation

- ❖ **P. A. Amaldev and V. Khais ali marakkar** of II B. Tech Food Technology have undergone internship program in **“VOCON Manufacturing pvt. Ltd”** during the period of **06th December 2019 to 13th December 2019.**
- ❖ **M. Varnna priya** of II B. Tech Food Technology had undergone an in-plant training in **“INDIAN FOODS pvt.ltd”**. (Co-packers of Britannia manufacturing) during the period of **10th December 2019 to 16th December 2019.**
- ❖ **P. Sarekha, M. Dhejaswini and R. Srimathi** of II B. Tech Food Technology had undergone an in-plant training at **“HATSUN AGRO PRODUCTS LTD”** during the period **9th December 2019 to 14th December 2019.**

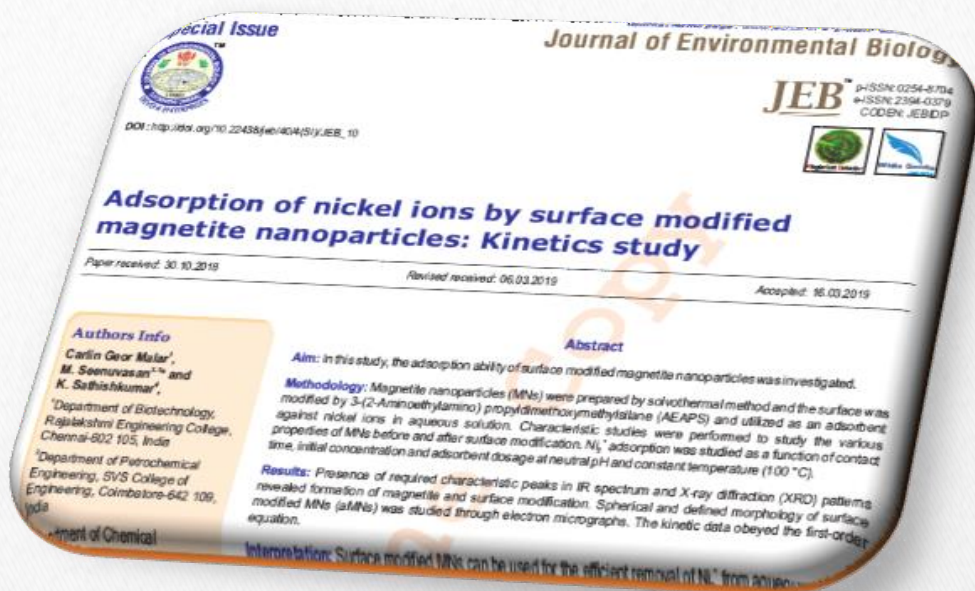
- ❖ **M. Mohamed Afrith, T, Kishore Sadagopan and R. Prakash** of II B. Tech Food Technology had undergone an internship training programme in “**Cavinkare Private Ltd**”, Erode under diary section, ambient products and beverage section from **3rd December 2019 to 12th December 2019**.
- ❖ **L. Siddarth** of II B. Tech Food Technology had undergone an internship training programme in “**United Breweries Limited**” during the period of **26th November 2019 to 12th December 2019**.
- ❖ **P. Aparna, Hitha Baburaj, J. P. Fathimathul Zahara, Sivani V Gopal** of II B. Tech Food Technology had undergone internship training programme on “**Post-Harvest, Processing and Quality Technologies in Coffee**” under regional coffee research station, Thandigudi during the period of **26th December 2019 to 30th December 2019**.

STAFF'S ACHIEVEMENTS

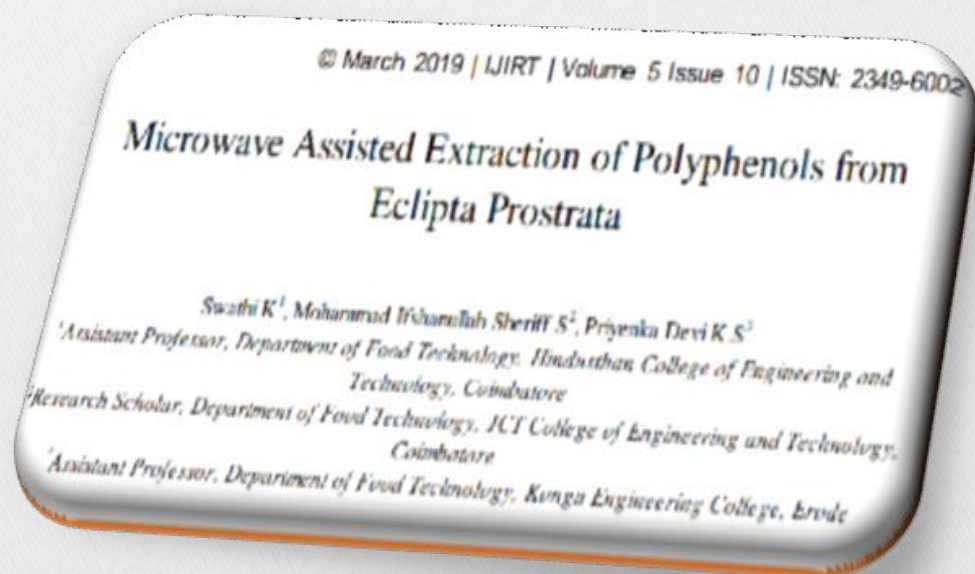
- ❖ **Dr. M. Seenuvasan (Professor & Head)** has published a paper on “**Utilizing Borassus flabellifer sprout peel sugars by *pseudomonas fluorescence* for degradation of textile effluent**” in the journal “**Journal of Environmental Biology**” 40 (4), pp. 736- 741, 2019. (I.F-0.727).



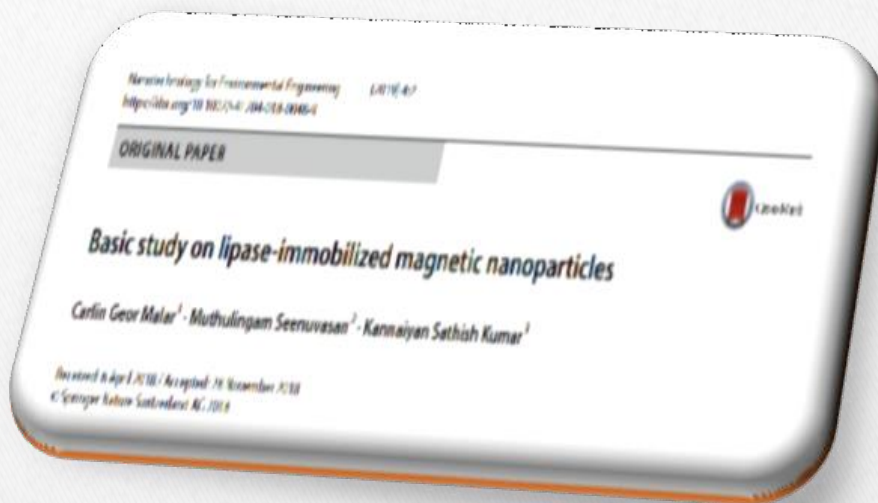
- ❖ **Dr. Seenuvasan M (Professor & Head)** has contributed a chapter on **“Diffusion Limitations in Biocatalytic Reactions: Challenges and Solutions”** in the book **“Biochemical and Environmental Bioprocessing”** published by **CRC Press (Taylor & Francis Group)**, ISSN 978-0-367- 18739-2.
- ❖ **Dr. Seenuvasan M (Professor & Head)** has contributed a chapter on **“Recent advancements and applications of nanotechnology in expelling heavy metal contaminants from wastewater”** in the book **“Biochemical and Environmental Bioprocessing”** published by **CRC Press (Taylor & Francis Group)**, ISSN 978-0-367- 18739-2.
- ❖ **Dr. Seenuvasan M (Professor & Head)** has contributed a chapter on **“Recovery of chitosan for natural biotic waste”** in the book **“Current developments in Biotechnology and Bioengineering”**.
- ❖ **Dr. Seenuvasan M (Professor & Head)** has published a paper on **“Absorption of nickel ions by surface modified magnetite nanoparticles: kinetics study”** in the journal **“Journal of Environmental Biology”** 40, pp. 748-752,2019.



- ❖ Mrs. Swathi K (Assistant professor) has published a paper on “Microwave Assisted Extraction of Polyphenols from Eclipta Prostrata” in the journal “international journal of innovative research in technology”.



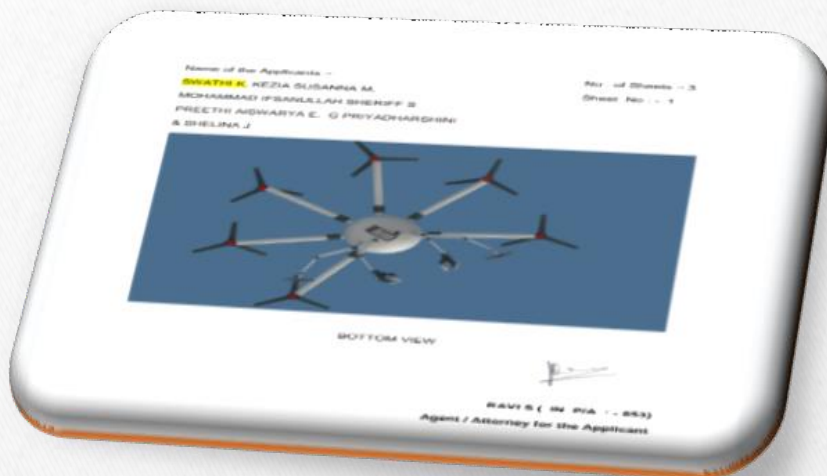
- ❖ **Dr. Seenuvasan M (Professor & Head)** has published a paper on **“Basic study on lipase – Immobilized Magnetic Nanoparticles”** in the journal **“Nanotechnology for Environmental Engineering”** Vol.4 (2), 2019.



- ❖ **Dr. Seenuvasan M (Professor & Head)** has published an article on **“Improvisation of diffusion co-efficient in surface modified magnetite nanoparticles”** (a novel perspective) **Materials Science and Engineering C: Materials for Biological Applications**. 103: 1–8, 2019, (I.F-5.08).



- ❖ Mrs. Swathi K (Assistant professor) has filed patent for “Unmanned aircraft system (UAS) for cutting coconuts and various fruits”. Patent no. 315691-001.



INDUSTRIAL VISITS

- ❖ Industrial visit was arranged to “**HERITAGE dairy products**”, Bangalore. During the period of 2nd September to 4th September 2019.



- ❖ One day industrial visit was arranged to “**VOCON MANUFACTURING Pvt. Ltd**”, Tirupur (co-packers of bingo chips). On 3rd August 2019.

EXTRA CURRICULAR ACTIVITIES

- ❖ **S. M. Lowell Sahabtin Raj** of II B. Tech Food Technology has won 2nd price in **CENTIES** football tournament.
- ❖ **S. M. Lowell Sahabtin Raj** of II B. Tech Food Technology has won 2nd price in football tournament conducted by **Sri Ramakrishna College of Engineering**.
- ❖ **S. M. Lowell Sahabtin Raj** of II B. Tech Food Technology has won 4th price in football tournament conducted by **GERMINATE FC, Erode**.
- ❖ **R. Surendhar** of II B. Tech Food Technology had participated in handball held in **Sri Ramakrishna College of engineering and technology**.



ARTICLE CORNER

Food processing: The untapped growth opportunity

The food processing industry is of enormous significance as it provides vital linkages and synergies that it promotes between the two pillars of the economy, i.e. agriculture and industry



Food processing has become an integral part of the food supply chain in the global economy, and India has also seen growth in this sector in the last few years.

Processing can be further delineated into primary and secondary processing. Rice, sugar, edible oil and flour mills are examples of primary processing. Secondary processing includes the processing of fruits and vegetables, dairy, bakery, chocolates and other items. Most processing in India can be classified as primary processing, which has lower value-addition compared to secondary processing. There is a need to move up the value chain in processed food products to boost farmer incomes. For instance, horticulture products, such as fruits and vegetables, carry the potential for higher value-addition when compared to cereal crops.

Improving the supply chain

Gaps in the supply chain are perhaps the biggest challenge faced by this industry. Pre-processing losses occur due to lack of awareness and a dearth of storage and pack-house facilities close to the farm gate. The shortage of refrigerated vehicles is reflected through losses occurring at the transport stage. Losses occur at the storage level as well. While at an aggregate level, India's cold storage capacity is at the required levels, the reality is that 60% of these cold storages are located in just four states—Uttar Pradesh, Punjab, West Bengal and Gujarat. Variation in quality is another impediment. Lack of avenues to adequately grade, sort and pack perishable produce is a major culprit in this regard. Therefore, pack-houses are of extreme importance.

The upgrading of 22,000 rural haats into Gramin Agriculture Markets (**GrAM**) was announced in the 2018-19 Budget. These are largely informal markets, but are close to the farm gate.

Farmer training and extension

Although building infrastructure is a requisite for enhancing the processing capacity, what is also of immense importance is to have enough skills to be able to use that capacity. Backward linkages to farmers need to be made more robust.

In order to ensure sustained growth in the sector, the priority for the new government is enhancing the cold-chain capacity, logistics infrastructure, and proper ways of marketing commodities, farmer training and skilling of the workforce.

The kitchen's a laboratory, and everything that happens there has to do with science. It's biology, chemistry, physics. Yes, there's history. Yes, there's artistry. Yes, to all of that. But what happened there, what actually happens to the food is all science.

Alton Brown

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&

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(Assistant Professor)

CONVENOR

DR. SEENUVASAN M

(Professor & Head)



*EVERYTHING IN FOOD IS SCIENCE.
THE ONLY SUBJECTIVE PART IS
WHEN YOU EAT IT.*

ALTON BROWN

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AND TECHNOLOGY
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