25<sup>TH</sup> EDITION

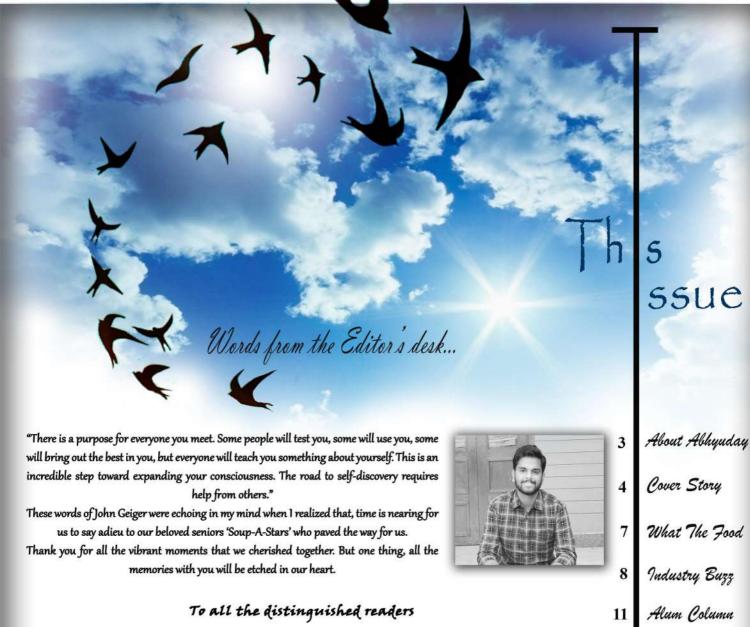


Reliving the Legacy



Food printing

AUGUST 2020



On behalf of the team Abhyuday, 1 humbly present to you the 25th edition of Abhyuday magazine crafted by the 55th batch of M.Sc. Food Technology, the 'PIEthons'.

Flip the pages to read our Cover story "3D Food Printing: A new frontier of future food" to See how an ingenious Sci-fi thought becoming a reality in the world of Food technology

However bemusing it might sound, What the Food unveils the disturbing secrets behind the world's most expensive coffee 'Kopi

The food industry is surely abuzz with innovations. Catch it all from Industry buzz

Get lost in nostalgia along with Mr. Jiby James (2011-13 Batch) who shares his indelible moments at CFTRI in Alumn column

Food Incorporated will make you know more about 'Paper Boat', the brand which offers varied ethnic flavours.

Kampus Khabar section unleashes the joyous moments we made it happen striving through the tough times of the global pandemic.

Taking an image or freezing a moment reveals the rich vibrant colours of CFTRI in the Photography section and never miss the chance to give an exercise for your brain in the Games section.

We will be looking forward to your valuable suggestions to improve ourselves ....

Happy reading....

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Editorial Team

Regards Fleming K F



# About Abhyuday.....

Emerging as a pioneer in food research in 1950 and continuing to provide an impetus to the food and allied sectors, CFTRI is the backbone of food-based scientific as well as industrial developments in India. The genesis of Abhyuday owes itself to the heritage that was created by the great minds that have been a part of this institution ever since the beginning and emerged from here as successful individuals spreading the glory of this place far and wide.

Abhyuday is a Sanskrit word which means beginning or awakening...

Awakening for re-inventing the vigour and strength by breaking away from the shackles of mediocrity and sombreness...Awakening for being the change and leading the way...

The e-newsletter, it is expected, would try and achieve its goal of promoting dissemination of the right and benign knowledge and act like an umbilical cord that would keep us connected to our mother institution.

Industry Buzz will include the past months developments in food industry viz. M&A, new product launches, new market entrants, market reviews, inventions and innovations etc. The Cover-Story will track one most important development of the month in the food industry with a detailed analysis from all the quarters. What The Food! will shed light on the interesting and lesser known facts about food. Kampus Khabar will attempt to track the campus news, developments, conference and seminars, tech-talks by our alumni. Career Corner would be the space where articles related to interpersonal and communication skill development, interview etiquette, CV writing skills etc. would be stressed.

The most exclusive of all the sections would be the Alumn Column which will feature technical articles, literary and artistic works, tweets and blogposts, creative and memorable contributions by our distinguished alumni. Also, we shall run a feature on one prominent CFTRIan in any field in each edition.

Besides, updates regarding upcoming seminars and events, congratulatory messages on birthdays and anniversaries, placements and promotions of alumni will also be featured. Advertisements from industries and entrepreneurs will also be featured for free. With a view to ensure the involvement of the readers and make the experience worthwhile, some games like crosswords, food quiz, jigsaw puzzles, riddles etc. would also be incorporated.



# **3D FOOD PRINTING:**

A new frontier of future food

As a Sci-fi movie fan, it was always fascinating for me to watch Star Trek's Replicator machine, capable of turning any molecule into a meal. But is that ingenious thought still a science fiction? Not anymore! The worlds of food science and microtechnology have collided, and today, we are reeling from their cosmic impact. Modern 3D printing technology can exceed our wildest expectations by transforming our ability to prepare and consume foods. In fact, So, what really it is? this food exploration has the ability to realize seemingly ludicrous ideas, such as printing 3D food printing, also known as food pizza for space missions to Mars. Are we layered manufacture (FLM), is an exciting ready for the illimitable possibilities new method of digital food production that applies of the future? the process of additive manufacturing to food fabrication.

Scope beyond limit...

From restaurants to spaceships, many places can benefit from the versatility of printing food. Restaurants and food manufacturers can create countless diverse food products from a small number of ingredients. In addition, food in conjunction with software has created many new concepts, such as the idea of digital pantries. 3D printers can also receive information about your health and use these data to print foods accordingly. At the Cornell Creative Machines Lab, one printer created 2 identically shaped cookies of different caloric intake for people with very different health histories. As a result, 3D printing can customize nutrition by making the same food for different people based on their personal biometrics. With this capability, even places with limited access to food can benefit from 3D printing. Food can be sent to Third World countries and prepared from prepackaged cartridges, which have longer shelf lives than fresh fruits and vegetables and can be customized with essential nutrients and specific dietary requirements. Eventually, with advanced 3D food printing technology, it may be possible to create more attractive meals for those who travel to remote places for extended periods of time. Also, 3D printing would allow for relatively simple cooking in space as well as longer shelf life.

designed with computer-aided design software and produced by splitting the designed object into thin layers. The layer template directs a digitally controlled XYZ-robotics system to construct the item in consecutive layers from the bottom up. The layers are fused together by phase transitions or chemical reactions, either during construction or in a separate places

post-construction step. The 3D food printing process can also allow the consumer full control of shape, color, flavor, texture, and ingredients. In addition, food in nutrition for food customany new concepts, such as the idea of

In the 3D food printing process, a food product is first scanned or



# **SWEET APPLICATIONS**

Experiments made by 3D Systems show a bright future for food 3D printing in confectionery. Scientists created a series of amazing cake toppings that couldn't be made without this technology. These also led to the creation of Chef Jet machine able to 3D print with sugar and is fully certified for food production.

Food industry giants are already setting an example of how food 3D printing can be implemented and utilized in various stages of product development and food production. British company Cadbury is using custom-made 3D printers for creating molds and prototypes of new sweets that

often wouldn't be possible to manufacture without a complex production line in place. This way they managed to quicken the product development process and lower the costs of inventing and introducing new products to the market.

# **READY-TO-USE FOOD 3D PRINTERS**

If you're not a maker, then consider buying an out-of-the-box machine for food 3D printing. One of the basic and simplest one to use is PancakeBot which allows, well, printing pancakes. The machine is very easy

> to use and certified for food production. You can be sure that every creation you make will be both pretty and edible, which is never guaranteed when you use a self-made machine.



# OTHER INNOVATIONS institute

TNO

completed a handful of successful food 3D printing projects that can ultimately change how some foods are being manufactured. One of the best examples is the 3D printed carrot made for retirement homes in Germany. Carrots are hard to chew and swallow for elderly people and their puree version doesn't look too appetizing. TNO engineers mashed the vegetables, added a gelling agent and 3D printed them looking like the real deal. They were able to do it with peas and broccoli too. It's one of the most thoughtful and

practical applications of food 3D printing so far!

already

# **LEGAL ASPECT TO CONSIDER**

It's very important to remember, that most 3D printers are not certified for food production. Some edible prints may even be dangerous for your health! In some countries, it's also illegal toproduce food this way, especially when you share or sell it to others. This is why most of the practical applications of 3D printing so far are still experimental or artistic.





# 3D Printing - Impact on Health

Many innovators in the 3D printing industry have come up with food printers that enable us to eat healthy and nutritious food more regularly. 3D food printers not only use fresh ingredients for a variety of recipes but also allow stricter control over food portion sizes, thereby reducing overconsumption. Another advantage of these printers is that you can even regulate preservatives, additives and other chemicals added to your food, thereby leading to a healthier meal plan.

# Eyes to the future

Just like any new technology, 3D printing has a host of new possibilities to offer, while at the same time the debate on its demerits is still raging on. But the fact remains, that we can easily see an exponential rise in the adoption rate of 3D printing technology in the coming decade. Many experts believe that global food shortage challenges can be effectively addressed by 3D printing food and that even though the technology right now is complex and expensive, 3D printers can soon become as ubiquitous as a household microwave oven.

Further Reading: 1) http://printinthemix.com/research/show/127

2)3D Food Printing: A New Dimension in Food Production Processes by Tara McHugh



# Kopi Luwak A Cat Poop Coffee!

WHAT

FOOD

E

Kopi Luwak is the world's most exclusive and expensive coffee. The main factor of its high price is the uncommon method of production. It is produced from coffee beans which have been partially digested by the Indonesian palm civet and then excreted. Yes, it sounds kind of gross, but not to worry! The outer layer of the coffee bean is removed during processing and the remaining beans are completely cleaned before being roasted and sent to consumers.

Kopi is the Indonesian word for coffee, and Luwak is the Indonesian word for a small ferret-like animal that has a resemblance to a cat. Kopi Luwak is often called cat poop coffee. That name is not entirely accurate since civets, Asian Palm Civets to be precise, are not really cats they are a related animal native to Southeast Asian countries like Indonesia, the Philippines and Vietnam.

The civets play an essential part in the production of Kopi Luwak or cat poop coffee. They are the gatekeepers of the quality because they sort through the coffee cherries and goes after the best and the ripest coffee fruits. So, Kopi Luwak contains only the highest quality coffee cherries. Besides, the flavor of the coffee is improved further by passing through the civet's digestive system. A special enzymatic process occurs in the civet's stomach where acids interact with the beans. This causes the beans to become less acidic and smoother.



Its extreme popularity is also because of its exceptional flavor and aroma. It is noticeably not bitter and is intensively aromatic. It has a complex flavor profile that is smooth, earthy and sweet with a hint of chocolate.

A coffee rebellion in Indonesia against the colonial Dutch is the reason for the invention of this bizarre processing method. Dutch discovered that the tropical climate of Indonesia made an excellent growing condition that allowed the coffee plant to flourish. However, the native plantation workers were forbidden from harvesting coffee beans for their use, the frustrated workers soon discovered that the cat-like civet would consume the coffee fruit and leave the coffee fruit and leave the coffee seeds undigested in their droppings. By gathering these droppings, cleaning, roasting and grinding them, they were able to make their own coffee. It wasn't too long until the coffee became the favourite among plantation owners who favored its strong aroma and bitter taste. Its scarcity made it an expensive brew.

It's not all coffee and cream. It has a disturbing secret being its production. As civet coffee gained popularity, and with Indonesia growing as a tourist destination, more wild civets are being confined to cages on coffee plantations. Many investigators found these wild-caught civets on farms in Indonesia and the Philippines. These were kept captive deprived of exercise, proper diet and space.

Despite huge controversy, Kopi luwak continues to be the favorite for many coffee lovers across the world and the most expensive one too!

# Industry Buzz

# FunFoods by Dr Oetker expands peanut butter with the launch of All Natural: 17th Jan 2020

Dr Oetker, a German-based company, acquired Fun Foods; a leading purveyor of western cuisine in India and has expanded its peanut butter range under the FunFoods brand with the launch of 'Peanut Butter All Natural'. It contains 33 percent natural protein, one of the highest in the category, and made from 100 per cent roasted peanuts. It has been specially designed for fitness enthusiasts and health-conscious consumers for their active lifestyle. All Natural peanut butter has a new texture named Ground which consists of creamy peanut butter blended with tiny bits of peanuts.

The peanut butter is a vegan product and contains no added sugar, salt, emulsifiers or preservatives. It is a good source of Vitamins B3, B6 and E, and natural antioxidants and contains MUFAs (monounsaturated fatty acids) which are good fats with many health benefits. The new peanut butter is available in two pack sizes with an appealing label design in green. The peanut butter has been launched after a consumer study where key barriers like the unknown taste, health and affordability were overcome.

https://foodsafetyhelpline.com/food-industry-this-week-new-products-adequate-supply/





# Bonn group launched its immunity-boosting herb and seeds bread: 14th May 2020

Punjab based Bonn group launched its first immunity-boosting herb and seed bread during the time of coronavirus pandemic. The bread contains essential ingredients such as oregano, turmeric, black pepper, sunflower seeds and pumpkin seeds which are considered to be good for health as well as boost immunity. "Oregano contains compounds like carvacrol and thymol that help boost the immune system, black pepper has antioxidant properties, pumpkin seeds are a rich source of Omega-6 fatty acids and sunflower seeds contain selenium which controls cell damage," statement said.

https://www.business-standard.com/article/pti-stories/bonn-group-launches-immunity-boosting-herb-and-seeds-bread-120051401688\_1.html

### French bakery Paul opened a maiden outlet at New Delhi's Ambience Mall:13th March 2020

Paul, a 130-year-old French bakery, restaurant and bar, launched its first outlet in New Delhi on March 13, 2020. It is a fine-dining space that serves both authentic French cuisine and patisserie items, including a variety of croissants, sandwiches, salads and artisan bread among other things. Its menu boasts of an array of mocktails, traditional French desserts, appetizers, soups, seafood, etc., all of which will be available throughout the day. PAUL offers you a wide breakfast range comprising sandwiches, Danish rolls, crepes, mashed potatoes, handcrafted bread and French butter. Paul serves high-quality products and thus ensures original taste using natural ingredients, and focused on the need for a balanced diet.

http://www.fnbnews.com/New-Launches/french-bakery-paul-to-open-maiden-outlet-at-new-delhis-ambience-mall-5 4341





# Marico launched veggie clean to sanitise fruits and vegetable as home level: 30th April 2020

Intending to fight coronavirus pandemic, Marico Limited has launched their wash liquid 'Veggie Clean' to sanitize fruits and vegetables at the household level. This product is available in consumer pack of 200mL and 400mL. The wash is free of soap, harmful preservatives, alcohol and chlorine and is designed to remove germs, bacteria, chemicals, waxes and soil present on the surface of fruits and vegetables without leaving any aftertaste, or smell. One just needs to hand-rub fruits and vegetables in one capful of veggie clean in 2L of the water solution and finally washed with fresh water 2-3 times for 30 seconds.

https://www.businessinsider.in/advertising/brands/news/marico-limited-launches-veggie-clean-that-helps-you-was h-germs-off-your-fruits-and-vegetables/articleshow/75468610.cms





FSSAI restricts any entity to register its website with the domain name comprising the word 'FSSAI' or to use its name and logo: Jan 09, 2020

FSSAI is a statutory body constituted under the Food Safety and Standards Authority of India Act, 2006. FSSAI has not authorized any entity to register its website with the domain name comprising the word 'FSSAI' or to use its name and logo or represent FSSAI as such. In the event, anyone intends to avail the services of any such online website for registration/ license as food business operator, background check of such a third party should be carried out concerning the authenticity or reliability of its services. FSSAI shall not be responsible for loss or damage suffered by the FBO on account of deficiency of services by such parties.

### For further information:

https://www.fssai.gov.in/upload/press\_release/2020/01/5e16faff5651dPress\_Release\_FSSAI\_Logo\_09\_01\_2020.pdf

Guidance note on Food Hygiene and Safety Guidelines for Food Businesses during Coronavirus Disease (COVID-19) Pandemic April 14.2020

A guidance note on food hygiene and safety guidelines for food businesses during Coronavirus Disease (COVID-19) pandemic was released by FSSAI dated 15.4.2020 (in Hindi and English language). The document covers best practices/ guidelines to be followed by the food handlers for maintaining high standards of personal hygiene, safe food practices, implementation of GHP and GMP practices laid in Schedule 4 of the FSS Act as well as ensuring necessary protocols of social distancing.

### For further information:

https://fssai.gov.in/upload/uploadfiles/files/Guidance\_Note\_COVID\_15\_04\_2020.pdf



# FSSAI initiates training for Food Businesses to Mitigate Covid-19 May 06, 2020

To enable and equip food businesses to function and reduce the risk of contagion, FSSAI has launched a training programme for food businesses under its flagship Food Safety Training & Certification programme (FoSTaC). The training will be conducted online through the empanelled Training Partners. Food businesses can visit www.fostac.fssai.gov.in or connect the FoSTaC training partners directly for this certification programme. The training programme caters to all stakeholders in the food ecosystem comprising of manufacturers, packers, transporters, retailers and food delivery partners and aggregators.

### For further information:

https://www.fssai.gov.in/upload/press\_release/2020/05/5eb27b6e2abbdPress\_Release\_Training\_Food\_COVID\_06\_05\_2020.pdf

# FSSAI facilitates food businesses amid COVID 19 pandemic May 12, 2020

FSSAI is engaged with State Food Safety Departments, communicating the emerging priorities in the food safety landscape. The priorities communicated include expediting work related to licensing on the online portal; establish licensing helpline in each State with a dedicated number and email id; create robust complaint handling mechanism; conduct only essential inspections etc. The need for facilitating food business has been strongly emphasized by FSSAI to the State food authorities

### For further information:

 $https://www.fssai.gov.in/upload/press\_release/2020/05/5eb27b6e2abbdPress\_Release\_Training\_Food\_COVID\_06\_05\_2020.pdf.$ 



# Mr.JIBY JAMES



Batch: 2011-2013 Research Techincian Reddet Institute New Zealand

Alumn column would like to thank Mr. Jiby James of 2011-2013 (NiChromites) batch for giving us his valuable time and sharing some of his indelible moments in CFTRI. He is currently working as Research Technician at Riddet Institute, New Zealand and was formerely associated with VKL Seasoning Pvt Ltd for seasoning creation and development for emerging Quick Service Restaurants, Snacks and Convenience foods markets in India, Middle East and African markets.

# ALUMN COLUMN

# 1. What was your batch name and is there any interesting story behind it?

"NiChromites", Interestingly, unlike other batches this one was coined after we graduated. Derived from two words, "Nicholas Appert" and "Chromium" metal. Nicolas Appert, being known as the Father of Canning or Food Technology and Chromium's atomic no. is 24 indicating group size of our batch. Rest you guessed it!

# 2. Walking down the memory lane, share us the most memorable moment at cftri?

Some of them include the regular group meets at Colonel Mallikarajuna Reddy Sir's house with his amazing Madam and his son Mahanth. Night walk with friends after dinner and sitting in front of the royal Cheluvamba mansion, gazing the stars and photography etc.

3. Strong bonding between seniors and juniors is the best part of cftri culture. Can you recollect your best experiences as a junior and as a senior?

As a Junior - Intro sessions, to know about each other.

As a senior – Birthday celebrations by beloved classmates and loving juniors!

# 4. Festivals are an integral part of our legacy. Which was your favorite festival celebration in the campus?

Not any special festival as such. But enjoyed the daily routine and occasional get together of birthday celebrations of seniors, juniors and classmates. It was during Holi festivals, we had wild celebrations outside the blocks in mud & colors. I remember having to scratch the back of Naman sir, my wall-mate!

5. This is a place where we explore new things. Is there something that you did in cftri but never done before?

Learning guitar.

# 6. Any embarrassing moments in cftri?

Mr. Shesha Narayan's session at the class. One of our classmates had a fun time teasing him by giving miscalls. But, this Sir, was smarter to check from my contact list (myself being the CR) and thus caught our class-mate red handed.

7. What was the most adventurous thing you did here?

Diving into the mighty Barachuki Waterfalls with class-mates.

**8. What were your hobbies and how you used to spend the time?** Volleyball ground behind F block.



# 9. What do you miss the most?

Corner House "DBC" Ice cream and Crispy masala dosa on Saturday early morning made by dear Raju at the mess.

# 10. In our beautiful campus which is your favorite spot?

Playing football, volleyball and guitar, Football with Einstein - from ISMT.

## 11. Can you share something about your besties?

Everyone was unique in one or the other way. Good friends for life.

# 12. Share something about your fresher's day and farewell?

Fresher's day was a surprise, got to do some modelling shows never done before, got the best male award. Farewell was a sad day for us leaving many of our seniors whom we dearly loved.

# 13. Best take away experience/ message from cftri?

Leadership and learning are indispensable to each other.

# 14. As alumni, any messages to your juniors?

Keep up the good work and strive hard! Live the best life and above all love everyone with a sincere heart!



# FOOD IN'CORPORATED







Paper Boat, known for its traditional Indian drinks, is a brand marketed by Hector Beverages Pvt. Ltd. that deals in non-alcoholic beverages. The Bengaluru headquartered company offers flavours such as thandai, serbet-e-khaas, rose tamarind, panakam, chilli guava, neer more, aanras, jaljera, kokum, and ginger lemon tea.

Hector Beverages launched Frissia, a Protein drink, as the first product in 2009, following which the energy drink brand, Tzinga was launched in 2011. In March 2013, aiming to the market of traditional drinks, the company launched Paper Boat, a fruit pulp based beverage brand shifted its focus to commercialize the traditional drinks of India into the modern context. Paper Boat does not coloring artificial use any preservatives in its products. Their drinks are not only tasty but healthy as compared to carbonated drinks. The company is targeting people who miss traditional drinks they used to consume. Hence, Paper Boat believes in 'making people taste memories'.

## It is the only brand offering such varied ethnic flavours to its customers.

The story of the company coming into unique existence is as as products. It was said that the idea came in the mind of co-founders when they were enjoying Aam Panna during one of office lunch. The brand was first launched with Aam Panna and Jal Jeera drinks and later added a wide range of ethnic drinks to its portfolio. Sticking to the core brand philosophy, Paper Boat foods aims to provide ethnic Indian snacks contemporary, modern packaging. In 2016, Company launched 500 ml Tetra packs of its two most popular drinks, Aam Ras and Anar. Later on the 500 ml packs were discontinued in 2017 and the brand launched its drinks in 1 liter Tetra Pak cartons. It also expanded to the traditional food segment by launching the Indian snack, peanut chikki in 2016. Peanut chikki was Paper Boat's first venture



into ethic Indian snacks. Paper Boat chikki has three other variants: crushed peanut, sesame and Rajgira peanut. Following the launch of chikki, the brand has also launched a range of ethnic Indian foods including Banana Chips, Aam Papad, Bakarwadi, Namak Para, Gur Para and Shakar Para. From single-serving, flexible pouches to Tetra Pak cartons, company has achieved a lot.

# **PRODUCTION FACILITIES:**

Hector Beverages presently has two manufacturing facilities. The company's first production plant was established in Manesar, Gurgaon in 2010. To boost its production to cater the demand and facilities for the manufacturing of coconut water and sugar cane juice, another plant was established in Mysuru in 2014. These processing lines can produce up to ten million of the pouches per month. While the Manesar plant has a production capacity of 80 bottles per minute, in the Mysuru plant, it is 380 bottles per minute.

# **INNOVATIVE PACKAGING:**

Paper Boat has put a lot of time and investment into correct packaging for their product. Though the pouches are not recyclable yet they have a 10% lower carbon footprint and generally lower overall environmental impact than glass, Tetra Pak or PET bottles. Paper boat pouches are four layered laminates. The two outer layers are made of a blend of proprietary polypropylene and polyethylene which contributes to the pack strength to withstand extreme pressure and temperature, also making it easy to print upon. Then the penultimate layer is made of Aluminium to keep away the moisture or any vapour entering into the pack. The inner layer is made of virgin, food-grade polypropylene making sure that contents are fresh, safe and tasty.

# **PRODUCTS**



# THANDAI

The chill, lush and rich Thandai is nothing but milk suffused with cardamom, black pepper, fennel powder and sugar, loaded with almonds, melon seeds and Khus khus. This energy booster drink powers up the immune system with its antioxidant and Vitamin E rich Almonds, with pepper, cardamom and fennel seeds having special digestive properties and its melon seeds full of protein, iron and vitamins.



# SERBET-E-KHAS

The Serbet-e-khaas has its roots in the hot Middle east where people used to reduce fresh fruits to syrups and enjoy them throughout the year. This sweet, refreshing and thirst-quenching drink is made of water, apple juice, lychee juice and sugar along with citric acid, grape juice, natural and nature-identical flavours.



# JAMUN KALAKHATTA

Enthralled by an age-old drink called "RAGA" which was made at the peak of civilization, this therapeutic drink is a combination of lots of jamuns, spices and condiments, sugar, water, lemon, citric acid and natural and identical flavouring nature Jamun substances. being of essential enormous source minerals, iron and vitamin C, it is



# PANAKAM

Inspired by the traditional drink which is made all over south India on the occasion of Rama Navami as an offering to God. Panakam is made of powdered jaggery, water, lemon and certain spices and condiments such as cardamom powder, black pepper powder, dry ginger powder and salt.



# ANAR

This nutritious drink is composed of 60% of pomegranate juice, sugar, water, some spices and condiments along with the natural identical flavouring substances. Anar has such exceptional antioxidant properties and it's an immunity booster too.



# AAMRAS

This soothing and serenading mango drink has 45% of mango pulp, sugar, water and some spices and condiments such as cardamom and saffron along with citric acid, antioxidants and natural identical flavouring substances. This is one of the brand's most popular drinks.



# Rose Tamarind

The Drink is inspired by a traditional Syrian drink consumed during the exhausting hot season of Ramzan. This refreshing drink is made of water, tamarind juice and sugar.





### WOMEN'S DAY AT CFTRI

CFTRI Women Employee Association celebrated International Women's Day on 8th March 2020 in Assembly hall. Dr. KSMS Raghava Rao, Director of CSIR-CFTRI and Dr. Swaroopa Rani D., presided over the function. On this occasion, The Director felicitated Padmashri Salumarada Thimmakka, the chief guest of honour, for her exceptional contribution in protecting the environment by planting trees. She enlightened the way her journey started by planting saplings and growing them as her own kids. A true inspiration indeed! The event emphasized the role of women in shaping the future and bringing about reforms in the society. The theme of the event was empowering women to have a better tomorrow and being impartial to gender parity.



# Hand Sanitizer (WHO Formula) Grantizer (WHO Formula)

# CONTRIBUTION BY MSC STUDENTS DURING THE PANDEMIC.

The world is witnessing the worst of time due to the COVID 19 pandemic. The use of sanitizers and PPE has become a must to ensure safety. In this hour of need, CSIR-CFTRI manufactured sanitizers (As per WHO guidelines) and PPE to ensure its supply to the local administration. The students from MSc came forward to assist the labelling and packing of the same by strictly following social distancing along with all safety measures. The sanitizers dispatched for the local hospitals and staff members of the institute was a kind gesture towards humanity in the pandemic time.

### **FUTURE INDIA TALKS**

Future India Talks was organized on 9th March 2020 at IFTTC Auditorium with a lecture on "In Science We Trust" by Dr. Shekhar C. Mande, Director General, CSIR & Secretary, DSIR. The event was presided by Dr. KSMS Raghava Rao, Director, CSIR-CFTRI. Scientists, Research Assistants and Students had an interaction session with Director-General on the interests of science. He illustrated how science could make humanity happier as science is looked upon as esoteric and difficult to comprehend despite trusting methods of science and has nothing to do with untested assumptions. Awards were distributed to the CFTRI prize winners of AWSAR (Augmenting Writing Skills for Articulating Research).





### HOLI

Holi came again spreading colours and joy around the campus as it was celebrated on 9th March 2020, with the Holika Dahan by lighting the bonfire in the evening to mark the victory of good over evil and a triumph of a true devotee. The Saturday morning on 14th March was the time to throw shades of colour, savour lavish sweets and melodious songs to dance, thereby sharing joy, warmth and smiles all around the IFFTC premises. The day coloured up everyone's life generously with the everlasting shades of Holi to be etched as one great moment just heading into the COVID-19 lockdown.



### **FAREWELL**

Amidst the COVID-19 pandemic, which took out almost all of the programs and events but for the farewell of the outgoing 54th batch of M.Sc. Food Technology (2018-2020) "Soup-A-Stars" which was organised on 31st July 2020 by "PIEthons" (2019-2021) batch. The aura of party and event was surely missed but nevertheless fun and feeling of togetherness was never to be left out. There were small fun games and snacks to savour along with lot of emotions flowing in amongst each other. It was an evening filled with joy and regret as this was the last gathering we celebrate with Soup-A-Stars.

### IFT ELECTION

IFT Club elections were conducted for new office bearers of M.Sc. Food Technology 2019-21 batch by outgoing office bearers of IFT Club. Mr. Soumya Ranjan Sahu was elected as the President of the club. Ms. Ramya V was elected as the Treasurer, Ms. Aishwarya Mishra and Mr. Telang Rohit Kamalakar as Cultural Secretaries, Mr. Adithya K S as Sports Secretary, Ms. Achala Achalkar as Quest CEO and Mr. Siddesh Odeyar K as the DJ of the club.

# CAREER NOURRITURE MEDICASTER CORNER THE DIETITIAN

A s the modern generation becomes busier and strapped for time, overall health takes a backseat. This unhealthy lifestyle leads to stress, unbalanced meal choices and lack of physical activity. Since 21st-century millennials are concerned about health and wellbeing, the world is opting for healthier lifestyles. But the "one size fits all approach" will not be ideal. Depending on the individual, personalized and high-quality nutrition must be tailored. That's were Dieticians comes to picture

"Dietitians are health-care professionals who treat nutritional problems. They supervise the patients and provide dietary advice, plan menu for them, and instruct patients about proper nutritional care."

### WHAT DIETITIANS DO?

- 1. Direct the patients about the proper diet that one has to follow to remain healthy.
- 2. Provide education to the people about food and nutrition issues. They identify and controls the nutrition and dietary problems of human.
- 3. Involved in the research work of the latest nutritional science. high blood pressure, and obesity), etc.

- 4. A dietitian deals with the patients having the problem of gaining and losing weight (obesity, debility).
- 5. Manage chronic conditions (high cholesterol,

Dieticians help change their patients' diets by giving them a healthy diet schedule consisting of the right amount of protein, vitamins, and fat. They assess, diagnose and treat nutritional problems of the individuals. A Registered Dietitian (RD) or Registered Dietitian Nutritionist (RDN) is a certified professional who prescribes a healthy diet plan and lifestyle modification to his patients. After gaining experience in the dietitian course, RDs help the patients to overcome their health-related problems, by analyzing patient's health, eating and exercise habits, schedule of diet, habits,

Dietitian is to REALISE and PROVE that food is medicine



# Scope

After completion of the dietitian course, you can become RD Registered Dietitian and can work with medical teams in hospitals, health-maintenance organizations, private/public practices and other health care centres. You can go for further research studies in this field. The demand for dietitians is very high in India or other countries. Today everyone is health-conscious or wish to be fit and healthy. For this, they generally contact the dietitian to summarize their meal into a good diet. The overall scope of the dietitian is regularly increasing; you can find a list of job opportunities such as-

- Sport Dietician
- Food-Allergy specialist
- · Paediatric Dietician
- · Gerontological nutrition specialist etc.

# DIETETICS A DAWNING SCIENCE......

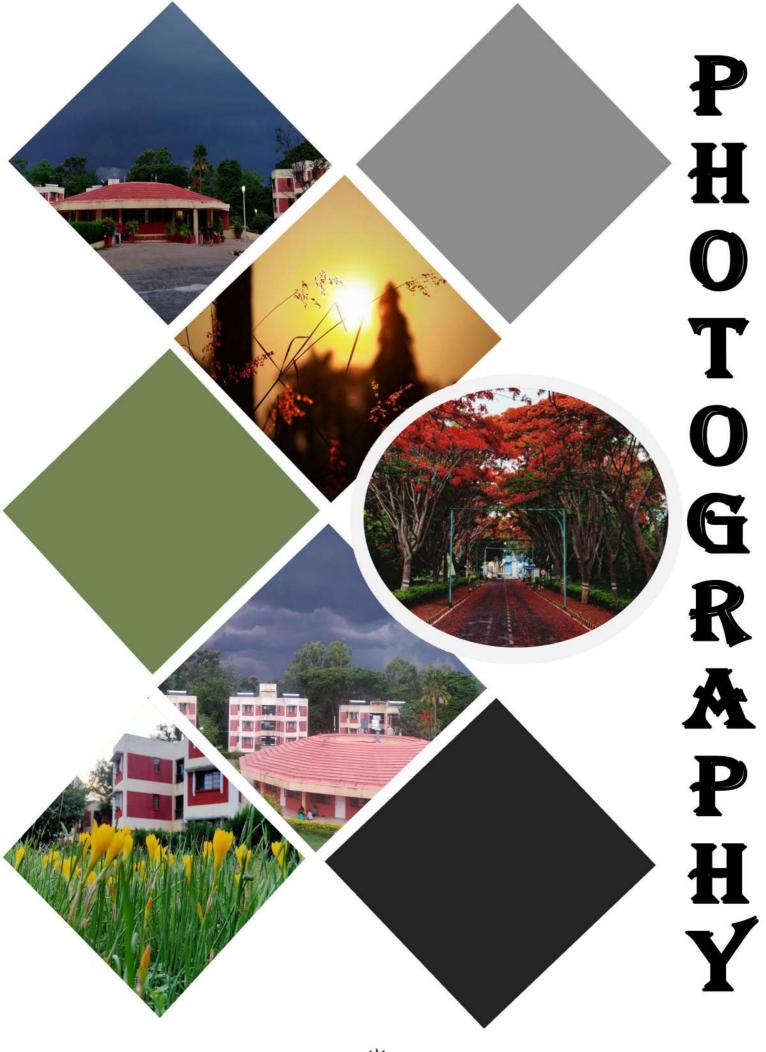
Many dietitians also work for the National Health Service (NHS). After becoming a dietitian, aspirants can work as a clinical dietitian, community dietitian, dietetic educator, food service dietician, therapeutic dietitian, registered dietitian, public health dietitian, or research dietitian. One can do further studies in this course, such as a Masters, M Phil and Ph.D., after graduation. As a career, aspirants can be employed in hotels, cruise lines, nursing homes, hospitals and government health departments. In the shipping company, dieticians get recruited by Shell, Maersk, or their partner companies that run tourist ships along with logistics.

# DO YOU KNOW FOOD TECHIES CAN ALSO BECOME A DIETITIAN?

You will get the title of a registered dietitian (RD) or registered nutritionists if you satisfy the following academic requirements:

- BSc /BA nutrition or the bachelor's degree of Science in Food Technology.
- PG in Diploma in Nutrition or an MSc in Food and Nutrition
- Internship from an approved health-care facility for about six months
- Clear Registered Dietitian entrance exam to obtain the license required for the status of dietitians and nutritionists



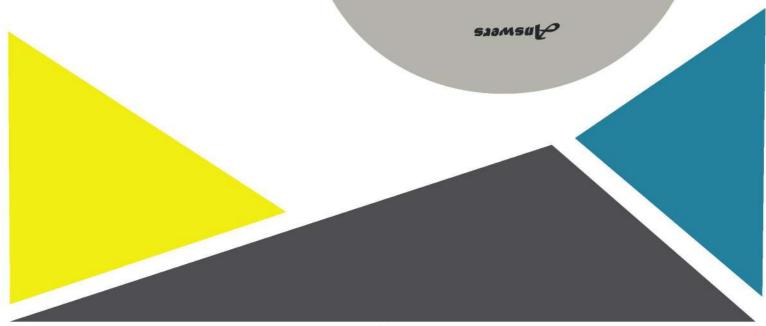




Can you guess the Brand behind the tagline?

- 1. "The Best Drink created worldwide"
- 2. "Betcha can't eat just one"
- 3. "You Got 30 Minutes"
- 4. "Good Food Good Life"
- 5. "Free the Joy or Taste like this"
- 6. "I'm lovin' it"
- 7. "31 flavours"
- 8. "To inspire and nurture the human spirit"
- 9. "It gives you wings"
- 10." Other potato chips just don't stack up"
- 11."If patience is not your thing"
- 12." Eat Fresh"
- 13." The sign of good taste"
- 14."The Beer of Kings"
- 15." The king of good times"
- 16." Happy Food Happy People"
- 17. "The original milk Shake"
- 18." Eat healthy, think better"
- 19." Open Happiness"
- 20. "57 Varieties

1.Pepsi 2.Lay's 3.Domino's 4.Nestlé 5.Cadbury 6.McDonald's 7.Baskin Robbins 8.Starbucks 9.Red Bull 10.Pringles 11.Knorr 12.Subway 13.LiptoTea 14.Budweiser 15.Kingfisher Dairy 17.Keventers 18.Brittania 19.Coca-Cola 20.Heinz.



# EDITORIAL

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