



# vigyaan tantragyaan anuvaadan

#### DEPARTMENT OF SCIENCE AND TECHNOLOGY

NITTE UNIVERSITY TECHNOLOGY ENABLING CENTRE



DST NU-TEC Chronicle   February to May 2021				
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# FIRST TECHNOLOGY TRANSFER FROM NITTE (DU) TO A STARTUP

25 Feb 2021

On 25 Feb 2021, a technology transfer agreement was signed between Nitte (DU) Eshanva M/S **Beverages** commercialization of a patented technology for production of beverages from betel leaf. Mr H.S. Sandeep Kumar, Promotor and Director, Eshanya Beverages and Dr Alka Kulkarni, Registrar, Nitte (DU) signed the agreement. The Chancellor of Nitte (DU), Shri N. Vinaya Hegde handed over the technology package to Eshanya Beverages in the presence of the Pro Chancellors Shantharam Shetty and Shri Vishal Hegde, Vice Chancellor Dr Satheesh Kumar Bhandary, Finance Director Shri Rajendra, Advisor (Research & Patents) Dr Iddya Karunasagar, Director (Projects & DST NU-TEC) Dr Indrani Karunasagar, Dean K.S. Hegde Medical Academy Dr Prakash, and Dr Mamatha, B.S. Assistant Professor and developer of the patented technology.







Nitte (DU) has a number of technologies ready for commercialization in the area of food technology, environmental management and aquaculture. The Vice Chancellor Dr Satheesh Kumar Bhandary informed that the details of technologies are available in the DST NU-TEC, Nitte (DU) website and any Startup or MSMEs or companies interested to take up may contact the DST NU-TEC office.

www.dstnutec.in





Technology The Enabling Center awarded to Nitte (DU) by the DST, GoI has the mandate to handhold ideation, development transfer of technologies commercialization. The centre facilitated the development of technology the production of beverage from betel known to be rich in antioxidants antimicrobial molecules. Betel leaf is also considered a natural appetizer, carminative, mild stimulant with anti-diabetic, and antihypertensive activity. The technology was developed bearing in mind regulatory as well as consumer requirements. The product was analyzed in the laboratory and organoleptic evaluation was performed. The final product was considered fit for commercialization. It is expected to hit the market in a couple of months. M/S Eshanva Beverages is exploring the domestic and overseas market for the product launch.

▶ ನಿಟ್ಟೆವಿ.ವಿ., ಈಶಾನ್ಯ ಬೆವರೆಜಸ್ ಸಂಸ್ಥೆ

## ವೀಳ್ಯದೆಲೆಯಿಂದ ಪಾನೀಯ ಉತ್ಪಾದನೆ: ತಂತ್ರಜ್ಞಾನದ ವರ್ಗಾವಣೆಯ ಒಪ್ಪಂದ

ದೇರಳಕಟ್ಟೆ ಫೆ. 26: ನಿಟ್ಟೆ ವಿ.ವಿ. ಮತ್ತು ಈಶಾನ್ಯ ಬೆವರೆಜಸ್ ಸಂಸ್ಥೆಯ ನಡುವೆ ವೀಳ್ಯದೆಲೆಯಿಂದ ಪಾನೀಯ ಉತ್ಪಾದನೆಯ ಪೇಟೆಂಟ್ ಪಡೆದ ತಂತ್ರ ಜ್ಞಾನದ ವರ್ಗಾವಣೆಯ ಒಪ್ಪಂದವು ನಿಟ್ಟಿ ವಿಶ್ವವಿದ್ಯಾನಿಲಯದಲ್ಲಿ ಉಭಯ ಸಂಸ್ಥೆಗಳ ಮುಖ್ಯಸ್ಥರ ಸಮ್ಮುಖದಲ್ಲಿ ಜರಗಿತು.

ನಿಟ್ಟಿ ವಿ.ವಿ.ಯ ಪರವಾಗಿ ಕುಲಸಚಿವೆ <mark>ಸದ್ಯದಲ್ಲೇ ಮಾರುಕಟ್ಟೆಗೆ</mark> ಶಾ। ಅಲ್ತಾ ಕುಲಕರ್ಣ ಅವರು ಮತ್ತು ಸಂಶೋಧನೆ, ಪೇಟೆಂಟ್ ವಿಭಾಗದ ಡಾ। ಅಲ್ಲಾ ಕುಲಕರ್ಣಿ ಅವರು ಮತ್ತು ಮೆ। ಈಶಾನ್ಯ ಬೆವರೆಜಸ್ ಪರವಾಗಿ ಸಲಹೆಗಾರರಾದ ಡಾ। ಇಡ್ಯಾ ಕರುಣಾ ಅವು ಇಂದ್ರಿಯಗಳ ಮೇಲೆ ಮಾಡುವ ಅದರ ಪ್ರವರ್ತಕ, ನಿರ್ದೇಶಕ ಎಚ್.ಎಸ್. ಸಾಗರ್ ಮಾತನಾಡಿ, ವಿಜ್ಞಾನ ಮತ್ತು ತಂತ್ರ ಸಂದೀಪ್ ಕುಮಾರ್ ಅವರು ಒಪ್ಪಂದಕ್ಕೆ ಸಹಿ ಜ್ಞಾನ ಇಲಾಖೆ ಮತ್ತು ನಿಟ್ಟಿ ವಿ.ವಿ.ಯ ಪ್ರಯೋಗಾಲಯಗಳ ವರದಿಯನ್ನು ಮಾಡಿದರು. ನಿಟಿ ವಿ.ವಿ.ಯ ಕುಲಾಧಿಪತಿ ತಂತ್ರಜ್ಞಾನ ಸಕ್ಕಿಯಗೊಳಿಸುವ ಕೇಂದ್ರವು, ಪಡೆದ ಅನಂತರವೇ ವಾಣಜ್ಯೀಕರಣಕ್ಕೆ ಎನ್. ವಿನಯ ಹೆಗ್ಡೆ ಅವರು ತಂತ್ರಜ್ಞಾನದ ವಾಣಿಜೈ ಕರಣಕ್ಕಾಗಿ ಪ್ರಾಕೇಜ್ ಅನ್ನು ಸಹಕುಲಾಧಿಪತಿ ಡಾ। ಅಭಿವೃದ್ಧಿ ಮತ್ತು ವರ್ಗಾವಣೆಗೆ ಅನು ಸದ್ಯದಲ್ಲೇ ಮಾರುಕಟ್ಟೆಯನ್ನು ತಲುಪಲಿದೆ. ಎಂ. ಶಾಂತಾರಾಮ್ ಶೆಟ್ಟಿ ವಿಶಾಲ್ ಕೂಲಮಾಡಿಕೊಡುತ್ತಿದೆ. ನಿಟ್ಟಿ ವಿ.ವಿ.ಯ ಮೆ। ಈಶಾನ್ಯ ಬೆವರೆಜಸ್ ಈ ಉತ್ಪನ್ನಕ್ಕೆ ಹೆಗೆ, ಕುಲಪತಿಗಳಾದ ಡಾ। ಸತೀಶ್ ಡಿಎಸ್ಟ, ನ್ಯೂಟಿಕ್ ಕುಮಾರ್ ಭಂಡಾರಿ, ಹಣಕಾಸು ನಿರ್ದೇ ಉತ್ಪರ್ಷಣ ಶಕ ರಾಜೇಂದ್ರ, ಸಂಶೋಧನೆ, ಪೇಟೆಂಟ್ ಆಂಟಿ ಮೈಕ್ರೋಬಯಲ್ ಅಣುಗಳಿಂದ ನಿಟ್ಟಿ ವಿ.ವಿ.ಯಲ್ಲಿ ಆಹಾರ ಉದ್ಯಮ, ವಿಭಾಗದ ಸಲಹೆಗಾರರಾದ ಡಾ। ಇಡ್ಯಾ ಸಮೃದ್ಧವಾಗಿರುವ ಕೆ.ಎಸ್. ಹೆಗ್ಗೆ ಮೆಡಿಕಲ್ ಅಕಾಡೆಮಿಯ ವೀಳ್ಯದೆಲೆಯನ್ನು ತಂತ್ರಜ್ಞಾನವನ್ನು ಅಭಿವೃದ್ಧಿಪಡಿಸಿರುವ ಜಗಿಯುವ ಕ್ರಿಯೆಗೆ ಆವರ ಸಮ್ಮುಖದಲ್ಲಿ ಈಶಾನ್ಯ ಬೆವರೆಜಸ್ ಮಾಲಕರಿಗೆ ಹಸ್ತಾಂತರಿಸಿದರು.



ನಿರೋಧಕಗಳು ಮತು ಬಗ್ಗೆಯೂ ಚಿಂತನೆ ನಡೆಸುತ್ತಿದೆ. ನೈಸರ್ಗಿಕ ಹಸಿವು, ಈ ತಂತ್ರಜ್ಞಾನವನ್ನು ಆವಶ್ಯಕತೆಗಳು

ನಿಯಂತ್ರಣವನ್ನು ಮನಸ್ಸಿನಲ್ಲಿಟ್ಟುಕೊಂಡು ಅಭಿವೃದ್ಧಿಪಡಿಸಲಾಗಿದೆ. ಈ ಉತ್ಪನ್ನವನ್ನು ಪರಿಣಾಮಗಳನ್ನು ಮತ್ತು ವಿಶ್ಲೇಷಣಾ ತಂತ್ರಜ್ಞಾನಗಳ ಬಿಡುಗಡೆಗೊಳಿಸಲಾಗಿದೆ. ಈ ಉತ್ಪನ್ನವು ವಿಭಾಗವು ಅಂತಾರಾಷ್ಟ್ರೀಯ ಮಾರುಕಟ್ಟೆಯ

ವೀಳ್ಯದೆಲೆಯಿಂದ ಪರಿಸರ ನಿರ್ವಹಣೆ, ಜಲಚರ ಸಾಕಣೆ ಕರುಣಾಸಾಗರ್, ಡಿ.ಎಸ್.ಟಿ. ನ್ಯೂಟಿಕ್ ಪಾನೀಯಗಳ ಉತ್ಪಾದನೆಗೆ ತಂತ್ರಜ್ಞಾನವನ್ನು ಕ್ಷೇತ್ರದಲ್ಲಿ ವಾಣಿಜ್ಯೀಕರಣಕ್ಕೆ ಸಿದ್ದವಾಗಿರುವ ನಿರ್ದೇಶಕಿಡಾ। ಇಂದ್ರಾಣಿಕರುಣಾಸಾಗರ್, ಅಭಿವೃದ್ಧಿಪಡಿಸಲು ಅನುವುಮಾಡಿಕೊಟ್ಟಿದೆ. ಹಲವಾರುತಂತ್ರಜ್ಞಾನಗಳನ್ನು ಹೊಂದಿದೆ. ಈ ತಂತ್ರಜ್ಞಾನಗಳ ವಿವರಗಳು ನಿಟ್ಟೆ ವಿ.ವಿ.ಯ ಡೀನ್ ಆಗಿರುವ ಡಾ। ಪ್ರಕಾಶ್ ಪಿ.ಎಸ್., ಜೀರ್ಣಕಾರಕ, ಸೌಮ್ಯ ಸಭಾವ ಉತ್ತೇಜಕ, ವೆಬ್ಸ್ಟ್ ಟ್ ನಲ್ಲಿ ಲಭ್ಯವಿದೆ. ಯಾವುದೇ ವೀಳ್ಯದೆಲೆಯಿಂದ ಪಾನೀಯ ತಯಾರಿಸುವ ಕಾಮೋತ್ರೇಜಕ ಮತ್ತು ಉಲ್ಲಾಸಕರ ಆರಂಭಿಕ ಅಥವಾ ಎಂ.ಎಸ್.ಎಂ.ಇ.ಗಳು ಪ್ರಚೋದಕ ಅಥವಾ ತಂತ್ರಜ್ಞಾನದಲ್ಲಿ ಆಸಕ್ತ ಕಂಪೆನಿಗಳು ಸಹಪ್ರಾಧ್ಯಾಪಿಕೆ ಡಾ। ಮಮತಾ ಬಿ.ಎಸ್. ಎಂಬುದಾಗಿ ಪರಿಗಣಿಸಬಹುದಾಗಿದೆ. ನಿಟ್ಟೆ ವಿ.ವಿ.ಯನ್ನು ಸಂಪರ್ಕಿಸಬಹುದು ಗ್ರಾಹಕರ ಎಂದು ಕುಲಪತಿಗಳಾದ ಡಾ। ಸತೀಶ್ ಅವುಗಳ ಕುಮಾರ್ ಭಂಡಾರಿ ತಿಳಿಸಿದರು.





ಉದ್ಯಂಥಾಣಿ Sat, 27 February 2021 https://epaper.udayavani.com/c/58730359



# DST NU-TEC SIGNS MOU WITH ST JOSEPHS ENGINEERING COLLEGE





Interdisciplinary research and MoU between institutes from different fields is a great way to connect through formal agreements for handholding the young students and faculty towards translational research.

13 Apr 2021





NU-TEC and St Joseph's **DST** Engineering College, Mangalore signed a Memorandum of Understanding on April 13, 2021 to collaborate in inter and multi disciplinary research and developmental programmes. The MoU was signed by Rev. Fr Wilfred Prakash D'Souza Director, St Joseph's Engineering College and Prof Dr Alka Kulkarni, Registrar, Nitte (DU) in the august presence of Prof Dr Satheesh Kumar Bhandary, Hon'ble Vice Chancellor, Nitte (DU), Prof Dr M.S. Moodithaya, Pro Nitte (DU), Prof Vice-Chancellor, Mechanical Sudheer M, Head of Engineering, Dr Dayakshini, Prof and Head Dr Mamatha Girish, Dept. Electronics & Communications St Joseph's Engineering College, Mangaluru. Prof Dr Indrani Karunasagar highlighted the importance of institutions coming together for interdisciplinary research and a formal MoU facilitates the process. Prof Dr Iddya Karunasagar, Advisor - Research Patents briefed the national objectives and facilities available at TEC to translate academic research into technology to enable startups with market potential.

#### MENTORING HACKATHON PARTICIPANTS





#### 26 Mar 2021

Innovative solutions to India's daunting problems require one to think out of the box and competitive events such as Hackathons are organized basically to bring together the best minds to harness the creativity and expertise in a particular field.

Hackathon 2021 was organized by Nitte Atal Incubation Centre in association with the Institute Innovation Council (IIC) of Nitte (DU). The event was coordinated by NU-TEC at the NIA-NICO auditorium premises followed by an interactive meeting and discussion with Prof Dr Iddya Karunasagar at DST NU-TEC centre. The theme of the Hackathon centred around solving the most impactful problems in healthcare which was relevant to the prevailing pandemic situation. Solutions to various health related problems require a multidisciplinary approach for a healthy society and a thriving economy. A galaxy of healthcare experts from various departments of KSHEMA that included ENT, OBG, Nephrology, Endocrinology, Anaesthesiology, Psychiatry, Internal medicine and Cardiology addressed the budding, enthusiastic technocrats. Prof Dr Satheesh Kumar Bhandary Hon'ble Vice Chancellor enlightened the audience on the need for this hackathon. The event was presided over by Prof Dr Shantharam Shetty. Prof Dr Indrani Karunasagar in her welcome address highlighted the objective of DST TEC as one of nurturing the innovator. Young research enthusiasts and entrepreneurs participated and interacted with Dr Iddya Karunasagar who explained the role of DST TEC in mentoring.





# PAG MEET & DST NU-TEC WEBSITE LAUNCH

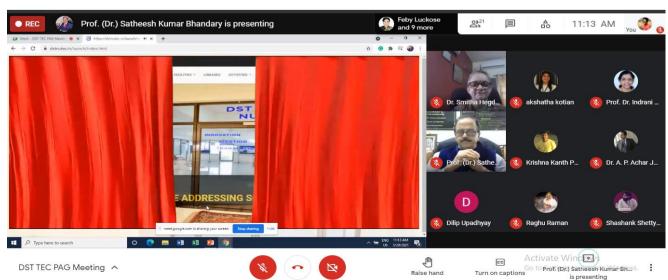
20 May 2021





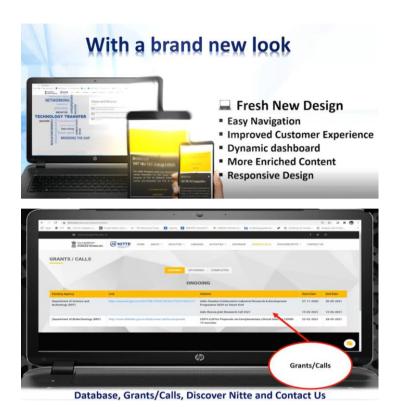
The DST NU-TEC official website was launched through virtual mode by the Hon'ble VC Prof Dr Satheesh Kumar Bhandary, during the PAG meeting to review the progress of Technology Enabling Centre during 2020-21 in the presence of DST officials, Dr Anita Aggarwal Coordinator DST TEC Programme, Dr Krishna Kanth Pulicherla Scientist TDT DST, Prof Dr B Gurumoorthy TEC-EAG member IISc, Prof Dr Raghu Raman TEC Coordinator Amritha Vishwapeetam and Prof Dr Aditya Abhaynakar TEC Coordinator Pune University.

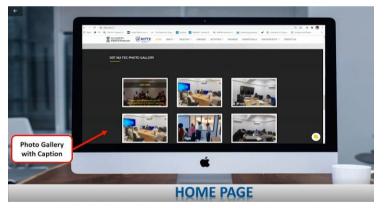
#### The website can be accessed using the URL www.dstnutec.in



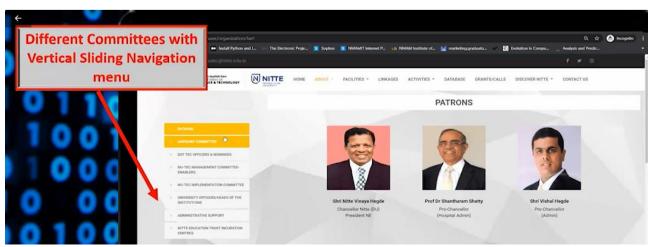


# WHAT HAS DST NU-TEC TO OFFER YOU? This website brings NU-TEC to your door step



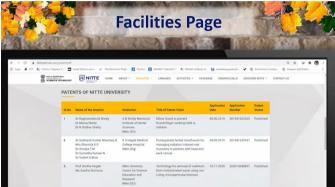


The website has a fresh new design and is user friendly with navigation tabs. The website is one stop solution to get details on technology various transfers. technologies in the pipeline and other activities going on at the TEC. The website also gives a real database of various requirements of industries so that academic and research institutes can work on relevant topics and find solutions. The help to objective of TEC is to bridge the between industry academia. The website provides details of national, international and private funders and details the schemes to enable researchers to have access to information for project application. The website provides linkage to all the DST Technology Enabling Centres and will thus enable networking and collaboration.



### WHAT WE HAVE IN THE SITE FOR OUR PARTNERS?













What do we have for academicians?	What do we have for Industries?			
Database of research needs of food, agriculture medical and engineering sector for enabling projects	Database of academic institutions for multi- disciplinary collaboration in food tech			
Information on service requirements of the industry	Database of technologies available for industries to take for commercialization			
Linkage with incubator for startups	Linkage with business incubator-AIC			
Laboratory equipment available for sharing by other academics	Laboratory equipment that can be utilized by industries			
Patent cell for support with application and IPR				
Animal house facility and clinical trial facility				



#### **BEST RESEARCHER AND RESEARCH PAPER AWARDS-2019**



Dr Deekshit, Sr. Asst. Prof, NUCSER, was crowned the 'Best Researcher' of Nitte (DU). He also won the coveted 'Best Researcher' award of NUCSER for 2019.



Dr Juliet Mohan Raj, Asst. Prof, NUCSER and co-author Prof Dr Indrani Karunasagar received the 'Best Research paper' award for 2019 for their paper entitled "Phages amid antimicrobial resistance "published in Critical reviews in microbiology.

## DR. INDRANI KARUNASAGAR AWARDED FELLOWSHIP BY KARNATAKA STATE SCIENCE AND TECHNOLOGY ACADEMY

The Karnataka Science and Technology Academy, a unit of the Department of Science and Technology, was established by the Government of Karnataka to facilitate dissemination of science and technology, foster innovations and entrepreneurship for societal benefit and act as a science, technology and innovation policy advisory body to the state. The Academy recognizes outstanding contributions made by scientists by awarding Fellowships. Recently, KSTA awarded Fellowship to Dr Indrani Karunasagar, Director, Projects and DST Technology Enabling Centre, Nitte Deemed to be University. This recognition was conferred on her as she is a recipient of Sir M. Visveshvaraya Lifetime Achievement Award, which is the highest award for Science and Technology given by the State of Karnataka. Dr Indrani Karunasagar has been a recipient of several prestigious national awards and fellowship and this is one more feather to her cap. Nitte University Chancellor, Shri N. Vinaya Hegde, while congratulating Dr Indrani Karunasagar for the award of Fellowship by KSTA, hoped that this achievement will lead to further strengthening of research and technology development in this region.



#### **EDITORIAL TEAM**

#### Dr Iddya Karunasagar

Advisor-Research & Patents

Dr Indrani Karunasagar

**Director-Projects & DST NU-TEC** 

**Dr Anirban Chakraborty** 

**Director NUCSER** 

**Dr Smitha Hegde** 

Coordinator

**Dr Krishna Kumar B** 

Co-coordinator

#### Dr Mamatha BS

Co-coordinator

**Dr Feby Luckose** 

Principal Project Associate

**Dr Caroline DSouza** 

Senior Project Associate

Ms Akshatha K

Junior Project Associate

Mr Anoopkrishna K

Junior Project Associate

#### **TEC ADVISORS**

**Dr Satheesh Kumar Bhandary** 

Vice-Chancellor

Dr M.S. Moodithaya

Pro-Vice-Chancellor

Dr Alka Kulkarni

Registrar

"Alone , we can do so little; together, we can do so much

-Helen Keller



Prof Dr Iddya Karunasagar gave a talk on "Demystifying IPR and how to publish in good journals" at Canara engineering college on 2 Feb 2021. The presentation focused on regulatory framework for patenting in India, eligibility for grant of patents, examples of product and process patents, steps involved in filing a patent application, tips for carrying out "prior art search" and "Why should one publish? Is there something worth publishing? Does the work add to any existing knowledge?"



Prof Dr Iddya Karunasagar, Advisor-Research & Patents Nitte (DU) was an invited expert in the Review meeting of FAO Technical Cooperation Project on "Antimicrobial resistance in aquaculture" on 11 Feb 2021. Other participants included Deputy Director General ICAR, Director NBFGR Lucknow, Senior officers from FAO Regional Office for Asia Pacific Bangkok and FAO Office in India, New Delhi.



Prof Dr Iddya Karunasagar Advisor-Research & **Patents** Nitte (DU) delivered an expert lecture on AMR & **AMU** experience in India in APFIC Webinar-2021: "Antimicrobial Resistance is Simple to Understand, vet it is often Misunderstood", held on 24 Feb 2021, organized by FAO of the United Nations.

Prof Dr Iddya Karunasagar Advisor-Research & Patents Nitte (DU) was moderator for Udyog Manthan webinar series on fisheries industry – "Challenges & opportunities in quality and productivity" organized by Department for Promotion of Industry & Internal Trade, Ministry of Commerce and Industry, GoI held on 18 Feb 2021.







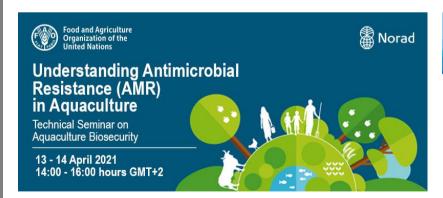


Prof Dr Iddya Karunasagar Advisor-Research & Patents Nitte (DU) inaugurated and delivered an expert lecture on "Writing of manuscript for case studies and short communication" in Continuing Nursing Education-Qualitive Research Tools, organized by NUINS on 12 Mar 2021.





Prof Dr Iddya Karunasagar Advisor-Research & Patents Nitte (DU) participated and delivered a special presentation at the expert consultation meeting on "Covid-19 regulation- Impacts on the dynamics of aquaculture & fisheries in SAARC countries" on 23-24 Mar 2021, organized by SAARC Agriculture Centre (SAC), Dhaka, Bangladesh.



Prof Dr Iddya Karunasagar Advisor-Research & Patents Nitte (DU) delivered expert lecture on "Understanding antimicrobial resistance in aquaculture" in the technical seminar on Aquaculture Biosecurity on 14 Apr 2021, organized by Food and Agricultural Organization of the United Nations.







Prof Dr Iddya Karunasagar Advisor-Research & Patents Nitte (DU) and Prof Dr Indrani Karunasagar Director, Projects & DST NU-TEC delivered expert lecture on webinar "Unravelling the Covid-19 pandemic and its management" on 15th May 2021 organized by Brindavan College of Engineering, Bangalore for all the engineering colleges of Visvesvaraya Technical University.

#### Highlights of the talk

Prof Dr Iddya Karunasagar introduced the concept of microbes and detailed on the corona virus causing the COVID-19 pandemic including its structure, variants, pathogenesis and pathogenicity. Prof Dr Indrani Karunasagar elaborated on lessons drawn for future from Covid pandemic at individual, community, national and international levels and highlighted the importance of Covid appropriate behaviour. She urged the engineering students to come forth with novel research ideas to tackle the pandemic by joining hands with the medical fraternity.

#### **PROJECT DISCUSSIONS HELD**

Project Topic	Institutions involved	Status of the project
Pilot scale processing of value-added, convenient and shelf stable products from Jackfruit using mechanical drying techniques	NUCSER & Pragvamshoo India	Submitted to BIRAC
Production of nutraceuticals from fish protein hydrolysates	AquaAgri Processing Pvt Ltd	Submitted to BIRAC
Target induced core shell satellite structures: creating a polyvalent multifunctional platform for multiplexed detection of nucleic acid	NUCSER & Magnimous Info Tech	Submitted to DST
Development of immune fluorescent nanodiagnostic assay as a point-of-care detection of dengue virus	NUCSER	Submitted to DST
Rapid and sensitive detection of novel corona virus (SARS-Cov-2) using isothermal nucleic acid amplification	NUCSER	Submitted to DST
Project discussion meeting with NMAMIT on developing artificial intelligence tool to diagnose UTI	NMAMIT	Submitted to DST
Project discussion on formulation of organic drink from cashew apple	NMAMIT	Under discussion for a Startup



Registration link: https://form.jotform.com/210752616636456

# Webinar on "Entrepreneurship and startup ecosystem in campuses"

22 Mar 2021

webinar on "Entrepreneurship and startup ecosystem in campuses" was organized by DST NU-TEC on Mar 22, 2021. Dr Satheesh Kumar Bhandary, Hon'ble Vice-Chancellor, Nitte (DU) in his opening remarks highlighted that innovation is the key to economic prosperity of not only the individual but also of the nation at large. Dr Karunasagar her Indrani in highlighted the role of DST in setting up the Technology Enabling Centres that scout for young innovators whose ideas can bloom. She presented a glimpse of the various activities conducted at the centre towards narrowing the gap between industry and academia.



Keynote speaker of the webinar **Prof** S. Ganga. Mentor-in-Residence, Society for Innovation and Entrepreneurship, IIT Mumbai, explained about CAWACH (Centre for Augmenting WAR with Covid-19 Health crisis) rapid response system model in relation to the startups that were created at the of Covid-19 crisis. updates on various policies of the Government available for startups was verv educative. Challenges faced by them and involved steps in technology transfer from lab to market was highlighted by her. She also dealt with the need for appropriate ecosystems for translational research. The role of academia and organizations to reach out to students and entrepreneurs and how the alumni network could strengthen the start-up ecosystem was emphasized. She opined that institutional policies should aligned with host incubators to create the best ecosystem for technology transfer. The webinar was moderated by Prof Dr Iddya Karunasagar.

YouTube link: <a href="https://www.youtube.com/watch?v=bKtH0-lyYao&t=2s">https://www.youtube.com/watch?v=bKtH0-lyYao&t=2s</a>



Registration link: https://form.jotform.com/211290901175449

Webinar on "Lessons from Covid-19 second wave" was organized under DST NU-TEC platform on 21st May 2021. Prof Dr Satheesh Kumar Bhandary, Vice-Chancellor, Nitte (DU) in his opening remarks, highlighted the importance of the webinar. As India reels under a massive second wave of the coronavirus pandemic, with an alarming rise in positive cases and deaths, he emphasised the need to be well prepared to face the likely challenge of a third wave. The eminent speaker of the webinar was Prof Dr V Ravi, Nodal officer for SARS CoV2, Genome Sequencing, Government of Karnataka. His presentation focused on core topics that included issues on whether the second wave of Covid-19 could have been prevented, impact of genomic variants in India, vaccination drive and its constraints and public response and preparedness for the third wave. The webinar was coordinated by Prof. Dr. Iddya Karunasagar, Advisor Research & Patents Nitte (DU) and moderated by Prof Dr. Indrani Karunasagar, Director, Projects & DST NU-TEC.

YouTube link: https://www.youtube.com/watch?v=JW2MEfy2CrY

Mortality is linked with aggressive immune response and not the attribute of the virus. However, new variants of virus can be more virulent than the parent virus. New variations in the virus could be due to the poor proofreading activity of RNA dependent RNA polymerase resulting in the change of amino acid or it could probably be due to the immunological pressure. Implications of the new variant will have impact in transmission, replication and vaccine escape. Currently there are 5 variants which are of concern. B.1.617.2 is the most predominant circulating strain in Karnataka. The spectrum of illness was vast and affects multiple systems. Covid-19 related symptoms worsen after 5 days which requires critical monitoring and this fact correlates with the relevance of monitoring inflammatory response and stress markers at this period. Remdesivir-antiviral drug shows effective results and steroids help to reduce the mortality associated with the disease. Vaccines do not prevent the infection rather it reduces the course and severity of illness and there is no significant differences reported in terms of neutralization of Covid-19 variants by various vaccines currently available.

# Lesson from Covid-19 second wave

21 May 2021

Emergence of second wave was maiorly due to *superspreading* events like crowding at social religious and political gatherings without following appropriate Covid etiquette. Virus variants arising is to be expected and vaccination with Covid apt behaviour will possibly help to prevent/manage the third wave effectively



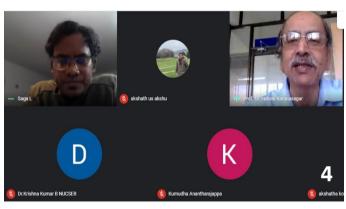


# COLLABORATIVE MEETINGS ON DEVELOPING TRANSLATIONAL RESEARCH PROJECTS











#### **Details of the meeting**

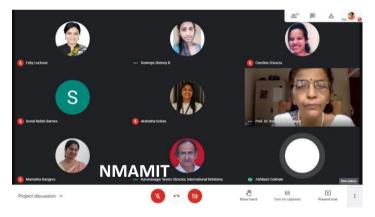
- 1. Facilitating collaboration of Mol Bio, Bangalore with MMM, Chennai with NUCSER
- 2. Discussion with faculty of NGSMIPS regarding research project development
- 3. Discussion with IKP officials from IKP hardware incubators, Bangalore
- 4. Development of project on SARS CoV-2 with NUCSER & Magnimous info tech
- 5. Discussion with SINE, IIT Mumbai regarding Incubating facilities at Nitte (DU)

## Scientific expertise meets industrial demands for product analysis





### **Handholding professionals**





## Discussion on possible patents arising out of research



