

>>> NEWSLETTER <<<

THE LEAF

NEWSLETTER OF VIT SCHOOL OF AGRICULTURAL INNOVATIONS AND ADVANCED LEARNING (VAIAL)

IF YOU TICKLE EARTH WITH A HOE, IT LAUGHTS WITH A HARVEST: DOUGHLAS JERROLD

FROM THE DESK OF DEAN



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Dear Readers,
Greetings from the VAIAL Family!

I am happy to present to you the second issue of VAIAL Newsletter. The school received various recognitions like certified seed producer, nodal centre of Kisan Mitr Program. Mobile Agri-clinic vehicle was launched which goes to nearby villages, interacts with farmers and tests the soil, water and plant samples of the farmers - free of cost. Few of our faculties were successful and received research grants from government agencies. I am extremely proud to share that our students received recognition in Plant the Moon challenge organized by NASA, where teams from all over the world participated. This indeed is an exemplary feast. VAIAL is progressing steadily towards bringing laurels to VIT.
Happy Reading!



WHAT'S INSIDE



About VAIAL

VIT School of Agricultural Innovations and Advanced Learning (VAIAL) is engaged in Agricultural education, research and extension. Core activities of the school revolve around teaching in Agriculture, training of students, organizing farmers training programmes, outreach and field programmes for the farmers, as well as research in agricultural and allied sectors. Integrated and self-sustainable organic farming is the main focus of the school. The school facilitates teaching, research, and extension activities in agriculture. The school imparts agricultural education through modern technology in and off the field.

Programmes Offered

B.Sc. (Hons.) Agriculture
Ph.D in Agronomy, Horticulture,
Plant Breeding and Genetics, Microbial Technology,
Agricultural Entomology, Agricultural Extension Education,
Agri-business Management, Agricultural Biotechnology,
Food Science and Technology, Agricultural Engineering



ACCOMPLISHMENTS OF SCHOOL

>>> CERTIFIED SEED PRODUCER

VAIAL received eminent recognition as a 'certified seed producer' by the department of seed certification, Government of Tamil Nadu. The produced seeds can also be marketed with VIT's brand and Trade names. The coordinating faculty members are Dr Karthika Rajendran (Plant breeding), Dr S. Poonguzhali (Seed Technology) and Dr. Madhusmita Dishri (Horticulture).

>>> LAUNCH OF MOBILE AGRI-CLINIC VEHICLE

Honorable Chancellor inaugurated the launch of VIT Mobile Agri Clinic at the THOFA (Thondai Mandalam Organic Farmers Association) event held at Thiruvannamalai on 23 March, 2022. Our mobile agri clinic is a vehicle with instruments and kits to test plant, soil and water samples from farmers fields on the spot, and give the prescriptions or remedy by VAIAL scientists and students. This mobile agri clinic will visit the villages and volunteer to analyze free of cost the field samples of farmers and give recommendations such as corrective measures for soil and water problems, pest and disease problems, as well as any nutrient deficiency disorders in crops. The Agri-clinic building was inaugurated in the campus on 19 August, 2022. The clinic has facilities like testing labs (3 Nos.), Seed collection room, Conference hall to conduct farmer's meeting and training.

**"IF AGRICULTURE
GOES WRONG,
NOTHING ELSE
WILL HAVE A
CHANCE TO GO
RIGHT"**

Dr M.S. Swaminathan



>>> NODAL CENTRE FOR KISAN MITR PROGRAMME

VIT School of Agricultural Innovations and Advanced Learning was recognized by Office of Chief Scientific Advisor, Govt of India and IIM Bangalore as nodal center to lead the Kisanmitr programme in English as well (the country wide programme) in addition to regional programme in Tamil. Institutes in other states will follow VIT VAIAL Kisanmitr programme in English to do their translations in regional languages.

FACULTY ACHIEVEMENTS

SANCTIONED PROJECTS



>>>> DST-SERB

Congratulations to Dr. JAGAN MOHAN OBBINENI for receiving a grant of Rs.18,30,000 from Dept of Science and Technology (DST-SERB). He received this grant for the topic "High-resolution structure of Banana bunchy top virus (BBTV) and Banana bract mosaic virus (BBBrMV) using single-particle cryo-electron microscopy - a step towards understanding plant viral infection mechanisms-TARE"

>>>> DBT

Congratulations to Dr. Paul Mansingh for getting funding from Dept of Biotechnology, Govt. of India for Establishment of DBT Rural Bioresource Complex at Ramanathapuram District, Tamil Nadu. He, principle investigator is entitled to receive a sanctioned amount of Rs. 38,29,800. This feat was achieved in collaboration with other Co-PI from VAIAL - Dr.Nisha, Dr .Sathiavelu A., and Dr.PadmaLakshmi G.



>>>> RESERVE BANK OF INDIA FELLOWSHIP

Congratulations to Dr G. Padmalakshmi for getting Scholarship Scheme for Faculty Members from Academic Institutions 2022, Development Research Group, Reserve Bank of India, Mumbai

AWARDS

ACADEMIC EXCELLENCE AWARD



Dr. Sowbiya Muneer received international academic excellence award 2022 given by Centre for Professional Advancement, Mysore, Karnataka for her contribution in the field of Horticultural Biotechnology.



UAE-INDO INSPIRING SCIENTIST AWARD

Dr. T. Parthasarathi received prestigious UAE-INDO Inspiring Scientist Award 2022 in International conference on Agriculture, Environment and Bio and Chemical Sciences at Dubai, UAE 2022 from November 16–17 in Dubai. The conference was hosted by IMRF, IIM Australia, IIST Sri Lanka, Genovasi University, Malaysia, and Riviera University, France host the International Educational Summit in Dubai.



OTHER ACHIEVEMENTS

➤➤➤ BEST PAPER AWARD

Dr T. Parthasarathy received the best paper award in International conference on Agriculture, Environment and Bio and Chemical Sciences at Dubai, UAE 2022 from November 16–17 in Dubai for his persistence in field of study. He presented his work on 'Phytoremediation of Chromium heavy metal using Am and DSE mediated fungus'.



➤➤➤ BEST ORAL PRESENTATION

Dr Utpal Das received best oral presentation award for his work entitled 'Technological Interventions in organic pineapple cultivation in Tripura' during the two day national conference on 'Digital and organic Interventions towards sustainable Agriculture, Horticulture and Animal Husbandry (DOISHA-2022), on October 15 and 16, 2022 at ICAR- Indian Institute of Rice Research (IIRR) Auditorium, Rajendranagar, Hyderabad.

➤➤➤ SECOND PRIZE IN ORAL PRESENTATION

Dr. Biswajita Mohanty received 2nd prize in oral presentation under the theme 'Climate change and its impact' in the 4th International Conference "Global Efforts on Agriculture Forestry, Environment and Food Security (GAFEF; 2022)" which was held at Nepal from 17th to 19th September; 2022.



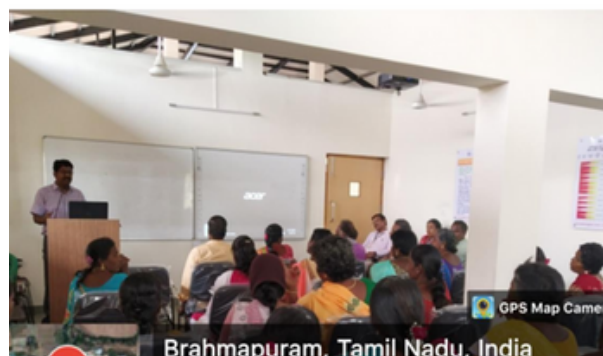
- Al Murad M., Muneer S. (2022) Silicon Supplementation Modulates Physiochemical Characteristics to Balance and Ameliorate Salinity Stress in Mung Bean. *Frontiers in Plant Science*. IF 6.627
- Venkat A., Muneer S. (2022) Role of Circadian Rhythms in Major Plant Metabolic and Signaling Pathways. *Frontiers in Plant Science*. IF 5.753
- Elango D., Rajendran K., Van der Laan L., Sebastiar S., Raigne J., Thaiparambil N.A., El Haddad N., Raja B., Wang W., Ferela A., Chiteri K.O., Thudi M., Varshney R.K., Chopra S., Singh A., Singh A.K. (2022) Raffinose Family Oligosaccharides: Friend or Foe for Human and Plant Health? *Frontiers in Plant Science*. IF 5.753
- Wagh M.S., Osborne W.J., Sivarajan S. (2022) *Bacillus xiamenensis* and earthworm *Eisenia fetida* in bio removal of lead, nickel and cadmium: A combined bioremediation approach. *Applied Soil Ecology*. IF 4.046
- Ramkumar G., Muthusamy R., Narayanan M., Dhanapal R., Karthik C., Shivakumar M.S., Malathi G., (2022) Pretreatment of mosquito larvae with ultraviolet-B and nitropolycyclic aromatic hydrocarbons induces increased sensitivity to permethrin toxicity. *Heliyon*. IF 3.776
- Saleem M.F., Ghaffar A., Ur Rahman M.H., Imran M., Iqbal R., Soufan W., Danish S., Datta R., Rajendran K., El Sabagh A. (2022) Effect of Short-Term Zero Tillage and Legume Intercrops on Soil Quality, Agronomic and Physiological Aspects of Cotton under Arid Climate. *Land*. IF 3.395
- Jenifer M.A., Jha M.K. (2022) A Novel GIS-Based Modeling Approach for Evaluating Aquifer Susceptibility to Anthropogenic Contamination. *Sustainability (Switzerland)*. IF 3.251
- Arakkal Thaiparambil N., Radhakrishnan V. (2022) Challenges in achieving an economically sustainable aquaponic system: a review. *Aquaculture International*. IF 2.953

- Balech R., Maalouf F., Patil S.B., Hejjaoui K., Abou Khater L., Rajendran K., Rubiales D., Kumar S.(2022) Evaluation of performance and stability of new sources for tolerance to post-emergence herbicides in lentil (*Lens culinaris ssp. culinaris Medik.*). *Crop and Pasture Science*. IF 2.249
- Sundar R.D.V., Arunachalam S. *Tradescantia pallida*, (2022) a natural alternative against vancomycin-resistant Enterococci. *Bangladesh Journal of Pharmacology*. IF 1.143
- Sabtharishi S., Thangaraj S.R., McCulloch G.A., Chandel R.K., Singh S.K., Subbarayalu M. (2022) Contrasting prevalence of Wolbachia infection across three key stored product beetles in India International. *Journal of Tropical Insect Science*. IF 1.020
- Sundar R.D.V., Arunachalam S. (2022) Anti-MRSA activity of *Polianthes tuberosa* leaf extracts. *Bangladesh Journal of Pharmacology*. IF 0.930
- Jenifer M.A., Jha M.K. (2022) Assessment of precipitation trends and its implications in the semi-arid region of Southern India. *Environmental Challenges*.
- EL Sabagh A., Islam M.S., Hossain A., Iqbal M.A., Mubeen M., Waleed M., Reginato M., Battaglia M., Ahmed S., Rehman A., Arif M., Athar H.-U.-R., Ratnasekera D., (2022) Phytohormones as Growth Regulators During Abiotic Stress Tolerance in Plants. *Frontiers in Agronomy*.
- Sugashini S., Sathiavelu A. (2022) A brief review on tuberculosis and recent findings in isolation of anti-tuberculosis compounds from endophytic fungi. *Research Journal of Biotechnology*.
- Krishnasamy R., Obbineni J.M. (2022) Methods for Green Synthesis of Metallic Nanoparticles Using Plant Extracts and their Biological Applications-A Review. *Journal of Biomimetics, Biomaterials and Biomedical Engineering*.
- Elango D., Devi K.D., Jeyabalakrishnan H.K., Rajendran K., Thoomatti Haridass V.K., Dharmaraj D., Charuchandran C.V., Wang W., Fakude M., Mishra R., Vembu K., Wang X. (2022) Agronomic, breeding, and biotechnological interventions to mitigate heavy metal toxicity problems in agriculture. *Journal of Agriculture and Food Research*.

EVENTS ORGANISED

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Farmers Awareness Training Programme on Contract Farming in Neem Tree under financial support of coromandel International Pvt. Ltd. organised by Dr Paul Mansingh and Dr Nisha on 16 January. The resource persons were: Dr S Babu, Dean VAIAL, VIT; Dr. R Pushpavalli, DGM, Neem plantation, Mr Mages Ram, Associative VP, and DGM (procurement), coromandel International Ltd. The training program explained about Neem cultivation, Neem contract farming, Neem future aspects with their microbial, biological and medicinal use and Importance of neem products for medicinal purposes in cattle diseases.



The six-day Farmers Training Programme for Skill Training of Rural Youth (STRY) on "Organic Farming" was conducted jointly by VAIAL, State Agricultural Management and Training Institute (SAMETI) Tamil Nadu, National Institute of Agricultural Extension Management (MANAGE), GoI and Department of Agriculture and Farmers Welfare, Government of Tamil Nadu from 28.02.2022 to 05.03.2022 in VIT, Vellore. The programme was inaugurated by Mr. Mahendra Pratap Dixit, Project Director - ATMA / Joint Director of Agriculture, Vellore. He emphasised the role of rural youth in agriculture and the organic farming as a need of the hour for sustainable agriculture and food security. The six day programme covered different aspects of organic farming including the steps in production of biopesticides, biofertilizers, organic manure, vermicomposting, azolla and organic farming.



Farmers Training Programme on “Commercial Cultivation & Value Addition of Moringa” conducted on 5 April, 2022 organised by Dr Paul Mansingh J and Dr. Nisha A. The purpose was to Induce knowledge on the commercial cultivation of Moringa, Provide techniques on marketing of Moringa and motivate the farmers on opportunities of value addition in Moringa.



One Day Awareness Training Program on Drip Irrigation for Rice farmers from nearby village (Ammundi, Brammapuram, and Karnampet) was organised with Netafim Irrigation on 26th May 2022. The session was addressed by Dr. Sabarinathan, a global agronomist with Netafim irrigation. Choice of rice varieties, irrigation automation, water and nutrient management, weed control, and rice quality and yield under drip irrigation were discussed. The question and answer session was lead by Mr. M. Lingamurthy, Netafim agronomist, farmers' and he informed about the subsidy programme for drip irrigation in paddy.



One day workshop on Micro- Teaching was organised on 21 May, 2022. The organisers of the workshop were Dr Paul Mansingh, Dr. Nisha, Dr. Anbarasan and Dr Padmalakshmi.



International conference on the theme “Only One Earth, Environment and Sustainable Agriculture” was organized on 04 and 05 June, 2022. Organizing secretaries were Dr. Parthasarathi T., Dr. S. Firdous and Dr. B. Mohanty. The conference was attended by candidates from about 134 organisations. Keynote speakers were Prof. Krishna Raj Tiwari, Institute of Forestry, Tribhuvan University Kathmandu, Nepal; Poonam Tripathi, Geospatial Solutions, ICIMOD, Nepal. Dr. Dibyendu Chatterjee, Scientist, Crop Production Division, ICAR – National Rice Research Institute, Cuttack, Odisha. Dr. Md. Azharul Islam, Dept. of Environmental Science, Bangladesh Agriculture University, Bangladesh. Dr. Moses Kwame Aidoo, Cocoa Research Institute of Ghana, Ghana. Dr. Byomkesh Talukder, York University, Canada.

Photography Competition for UG students of VIT was held on 5 June, 22. Organizing secretaries of the event were Dr. Parthasarathi T., Dr. S. Firdous and Dr. B. Mohanty. Narrative based original photographs dealing with environmental and agricultural activities were invited. Congratulations to Mr. Dhanush Kumar S. for winning the first place. Ms. Sawjhanya and Ms Madhan Kumar were the runner-up.



One Day Seminar on “Digital Photography – A strategic tool in Agriculture” was organised on 21 June, 2022 by Dr Paul Mansingh J and Dr. Nisha A. The purpose was to induce knowledge on the basics and techniques on effective photography skills, motivation on relevance and effective use of photography on dissemination of information to farmers

One day Workshop on Paddy Machine Transplanting was organised by Dr. Thirumalaikumar R, Dr Krishnaprabu N and Dr Pradeesh Kumar T on 8 July. The students were given hands on training on Dapog Nursery Seedlings Transportation, Paddy Machine Transplanting, Paddy Machine Transplanting at main field.



Student Workshop on “Systems Thinking and Experiential Learning in Agriculture” was organised by Dr. Paul Mansingh, Dr. P. Anbarasan, Dr. Mohanraj, Dr. A. Nisha, Dr. G Padma Lakshmi on 11 August. The purpose of Workshop was to impart knowledge & project analytical & modelling skills on systems thinking on real time problems faced by the farmers.

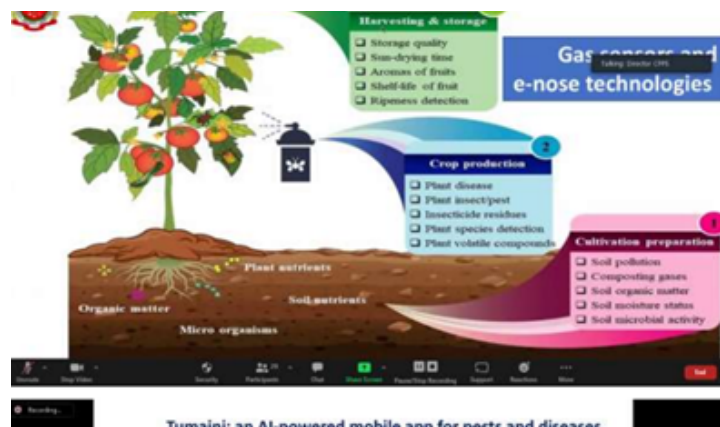


Farmers Training Programme on “Symptoms of Plant Diseases vs. Micro Nutrients Deficiency” was organised by Dr. Paul Mansingh, Dr. P. Anbarasan & Dr. Mohanraj on 19 August. The purpose was to impart knowledge to farmers , understand difference between micronutrient deficiency symptoms and plant diseases symptoms its remedial measures.



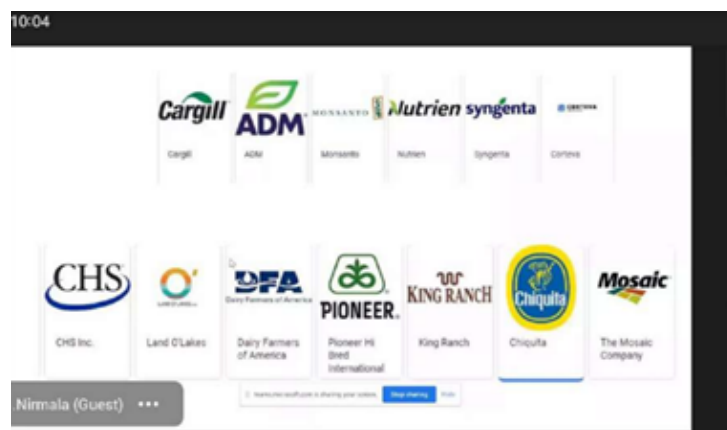
EVENTS ORGANISED

Training Program on “Vegetables Cultivation and IPM” organised by Dr. S. Babu and Dr. J. Paul Mansingh. Guest speakers for the event were Dr. S. Babu, Professor and Dean, VAIAL, VIT. Dr. S. Ramesh Kumar, Associate Professor, VAIAL, VIT. The event was conducted to expose the farmers knowledge about control pest and disease in organic ways and modern hi-tech techniques in vegetable cultivation, vegetable harvest technologies for Brinjal, Lady’s finger.



National Conference on Technological Advancements in Crop Protection was organised by Dr Lincy and Dr Priyadarshini on 7-8 October. The conference focused on research challenges and recent advances in the field of entomology and plant pathology. The event was followed by student competitions as well.

One day workshop on ‘Scope of Agricultural Graduates in Industries Abroad’ was conducted by the organising team of Dr Kariyanna and Dr Vidya on 5th October. The resource person was Dr J. Nirmala, principal Scientist, R&D, Eurofins Biodiagnostics Inc. USA. She discussed about the employment opportunities abroad in different dimensions of agriculture.



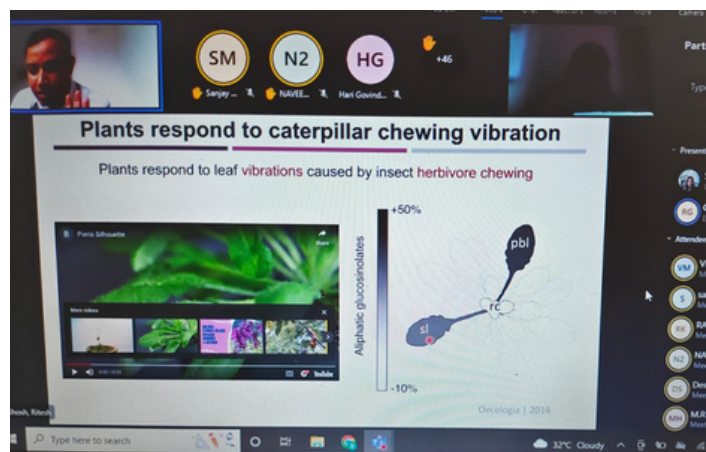
World Space Week Celebration-WSWS-22 was celebrated by VIT in collaboration with ISRO on 7-9 October. Dr. Vidya R represented VAIAL in organizing this event and making it successful. The event involved various student competitions and students and many schools and colleges came forward with their participation.



World Food Day was celebrated together by VAIAL and SBST on 17 October, 2022 organised by Dr. Vidisha Tomer and Prof. Chitra Kalaichelvan from VAIAL . The event was conducted in two phases- Seminar involving guest lectures and student events based on the theme ‘Leave no one behind’. The resource persons participated in the deliberation were Dr V.V. Sadamate, Agricultural extension specialist and Former Adviser Agriculture, Planning Commission, Govt of India; Dr. Jeya Shakila, Dean, Dr. MGR Fisheries College and Research Institute, Tamil Nadu and Dr. B. B. Borse, Prof. AcSIR, Sr. Principal Scientist, PPSFT Dept., Dy. Director CSIR-CFTRI, Mysore. Student competitions on the day involved- Food quiz, Poster making, Food craft and Foodathon.



Farmers Training Programme for Leaders/Members of Self Help Groups organised by Dr Paul Mansingh J and Dr.Nisha A on 25 November, 2022. The program emphasised on the importance of SHG'S in Atmanirbhar Bharat and Account keeping. It was conducted to create awareness and encouragement among members regarding benefits of SHGs and suggest the ways to succeed as a good entrepreneur. The program also imparted knowledge to the members about the significance of value-added products in current market trends and gave some information about market strategy.



International conference on recent trends in molecular physiology of horticultural crops under abiotic stress was held on 4-5 Dec, 2022. The organising secretary of the event was Dr. Sowbiya Muneer. The conference was co-organised by Dr Ramesh Kumar and Dr. Utpal Das. Eminent personalities from countries like Austrailia, UK, Jordan, South Korea, China and India were invited as keynote speakers. The event was attended by more than 150 participants.

AGRI-EXPO



The biggest event of the year 'Uzhavar Kalanjiam' - Agri Expo, a conference cum exhibition was successfully held on December 14-15, 2022. The two-day events included exhibition, stalls, training programs, an awareness campaign, and mobile clinic. The technical sessions covered topics of current interest viz., organic farming, water management, medicinal plants, value addition of millets, high density planting in Mango, fisheries technologies, government schemes and support for agriculture.

The occasion was graced by Dr. M. Krishnan, Vice-Chancellor, Central University of Tamil Nadu, Dr. T. Arumugam, Vice-Chancellor, Thiruvalluvar University, Vellore, Thiru. A. Justin, Additional Director of Agriculture, Government of Tamil Nadu and Mr. E. Raju, AGM, NABARD.

More than 4,500 farmers benefited from the two days events where more than 112 stalls were established to display the new equipment, farm products, crop varieties, value-added products, irrigation systems, etc.

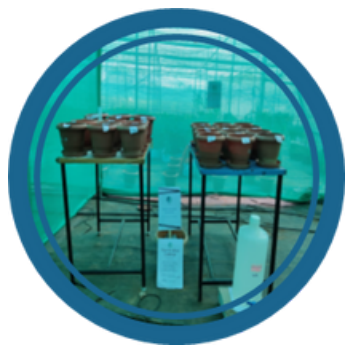


STUDENT ACHIEVEMENTS



B.Sc. (Hons.) agriculture students Gayathri A, Amjad Hussain, Pujitha Kaipu, Narendra V. Keerthipati, Hemapriya Nagarajan, Sneha Ramesh won the prize for best in the show for evaluation of results.

The Plant the Moon Challenge is a worldwide scientific experiment, learning exercise, and motivating project-based learning competition to determine who can grow the finest crops using lunar regolith simulant. The competition was organised by Institute of Competition Sciences, NASA



ALUMINI ACHIEVEMENTS

Congratulations!

For Admission in Foreign Universities for Master's Degree Programme

Jane Jenifer, Cranfield University, UK

Gavala Mounika, University of Missouri, USA

Bhuma Mahi Sahithi, Royal Melbourne Institute of Technology, Australia

Chetan Kumar Gupta, Universität Kassel, Germany



THE LEAF
ISSUE 2



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