

Department of Agricultural Engineering Nandha Engineering College - Erode - 638 052

VISSION

To foster academic excellence by imparting knowledge in Agricultural Engineering to meet the ever-growing needs of the society.

MISSION

To provide quality education to produce agricultural engineers with social responsibility.

To excel in the thrust areas of agricultural engineering to identify and solve the real-world problems.

To create a learner-centric environment by upgrading knowledge and skills to cater the needs and challenges of the society.

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

PEO1: Core Competency: Successful professional with core competency and inter-disciplinary skills to satisfy the Industrial needs.

PEO2: Research, Innovation and Life-long Learning: Capable of identifying technological requirements for the society and providing innovative solutions to real time problems.

PEO3: Ethics, Human values, and Entrepreneurship: Able to demonstrate ethical practices and managerial skills through continuous learning



**Dr. N. Rengarajan, Ph.D.,
Principal**

Greetings to the Department of Agricultural Engineering on the joyous occasion of the publication of the newsletter for the academic year 2021-22. I applaud the Department of Agricultural Engineering for its efforts in producing the newsletter.



**Dr. J. Senthil, Ph.D.,
Director, Tech campus**

It is my pleasure to congratulate the Department of Agricultural Engineering on the pleasant occasion of releasing the newsletter for the period 2021-22. It is great to find a considerable number of winners and participants in co-curricular and extra-curricular activities. I hope that this number will continue to grow in the years to come.



**Dr. E. K. Mohanraj, Ph.D.,
Dean**

Congratulations to the Agriculture Engineering Department's students and teachers on the publication of this newsletter. I believe this project fosters teamwork, motivates young people, and establishes a culture of regular newsletter releases.



**Dr. M. DHANANIVETHA, Ph.D.,
HoD - Agri.**

It gives me a fantastic opportunity to discuss the "Agri clickz 22" issue. This internal newsletter is one of the ways we can tell people about what's going on in the Department. I want to express my gratitude to all of my peers for their unwavering support of the steady improvement.

DEPARTMENT OF AGRICULTURAL ENGINEERING 2021-22

ABOUT AGRO CLIKZ'22NEWS

The AGRO CLIKZ'22 News is the voice of Agricultural Engineering; it is a newsletter from the Department of Agricultural Engineering which mainly focuses on the day-to-day happenings in the department. It speaks and visualizes the events happening in the department and the participation of students in various inter and intra college events. It encourages and brings out the talents of students in various fields.

ABOUT DEPARTMENT OF AGRICULTURAL ENGINEERING









Agricultural Engineering is started in the year 2017 with an intake of 60 students. Agricultural Engineering is a branch of engineering that deals with the design of farm machinery, location and planning of farm structures, farm drainage, soil management, erosion control, irrigation, rural electrification and processing of farm products. This is to find out the solution of the problems in the field of agriculture for increasing agricultural productivity, increasing the standard of living of the farmers.

Hands on training on crop production using tractor operated farm implements is offered in the farm. Our students are undergoing internships and trainings in farm machinery manufacturing industries, drip irrigation companies, food processing industries, dairy industry, renewable energy industries, etc. The Department has signed MoUs with various allied agriculture industries through which Students get Placements with good packages in Modern Dairy, processing Industries, Roots Irrigation Ltd., Shri Pachaiammal Agro Industry and many more.

INFRASTRUCTURE

The following laboratories have been established and students are being given hands-on training.

LABORATORY FACILITIES

- | | |
|--|--|
|  Soil Science Laboratory |  Farm Implements Laboratory |
|  Crop Production and Husbandry Laboratory |  Unit Operations Laboratory |
|  Farm Tractors Laboratory |  Irrigation and Drainage Laboratory |
|  Maintenance of Farm Machinery Laboratory |  Food and Dairy Laboratory, etc., |

ASSOCIATION INAUGURAL FUNCTION

Agro Tech Warriors Association inaugural function for the academic year 2021 - 22 was held on 24.12.2021. The chief guest of the function was Dr. K. Suganya, Associate Professor, Department of Environmental Science, Tamil Nadu Agricultural University, Coimbatore. The Presidential address was given by Thiru. V. Shanmugan, Chairman, Sri Nandha Educational Trust. Principal Address was given by Dr. N. Rengarajan, Principal, Nandha Engineering College. Felicitation address was given by Dr.S.Arumugam, CEO, Nandha Educational Institutions, Thiru.S.Nandhakumar Pradeep, Secretary, Sri Nandha Educational Trust, Thiru. S. Thirumoorthi, Secretary, Nandha Educational Institutions and Dr. J. Senthil, Director, Tech Campus. Dr. E. K. Mohanraj, Professor and Dean of the Agricultural Engineering department, delivered welcome address. Office bearers of Agro Tech Warriors was introduced by Mr. N.Mukilan. The key points on environmental sustainability in agriculture was highlighted by the chief guest.

ACADEMIC SEMINAR

Seminars are an important part of many academic programmes and provide an opportunity for a group of students to discuss and analyse a range of new material and ideas. Department of Agricultural Engineering organized various events,

orientation programs for the academic year 2021 – 22. These seminars focused on various aspects of Agriculture and its allied sectors for the benefit of students.

ORGANIC FARMING

Department of Agricultural Engineering organized a seminar on “Organic Farming for Sustainable Future and Development”. The main theme of the seminar was Organic Farming is a system of cultivation of food grains that sustains health of the soil and ecosystem. It is the system which avoids or largely excludes the use of artificial chemical inputs such as fertilizers, pesticides, hormones and feed additives in the field of agriculture. Arachalur Mr. R. Selvam Co-Ordinator Tamil Nadu Organic Farmer Federation who has been the resource person for the seminar through online mode held on 18th November 2021.

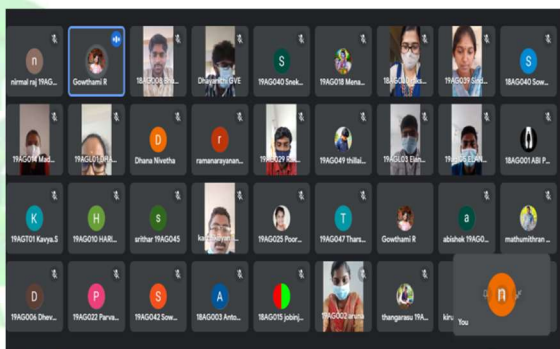


Online seminar on organic farming

CONSERVATION OF PLANT GENETIC RESOURCES

The academic webinar on conservation of plant genetic resources was held on 29th November 2021 through online mode. The

resource person is Dr. R. Gowthami, Scientist (Genetics and Plant breeding), Tissue Culture and Cryopreservation Unit, ICAR – National Bureau of Plant Genetic Resources (ICAR – NGPGR), Pusa Campus, New Delhi. The theme of the seminar was well explained by the resource person. She explained about the biodiversity, its types and got into the topic PGR -plant genetic resource. It is the genetic material of plant origin in potential value in form of the seed vegetative propagule, tissue, cell, pollen, DNA molecules etc., she explained about its importance.



Online seminar on conservation of PGR

FARM ENTREPRENEURSHIP

Department of Agricultural Engineering and Institution's Innovation Council (IIC) jointly organized an event on

"Farm Entrepreneurship – the way forward" on 7th December 2021. Prof. RM. Subramanian, Department of Agricultural Engineering, Nandha Engineering College, Erode has been the resource person and explained about the current situation of agriculture and farming people. Now a days, it is becoming like a trade

and farmers go for money and for life safe. Now all becoming as a business. The talk about "Ulavar Sandhai" gave lot of knowledge about it how people progress and process their products towards the customers.



Seminar on farm entrepreneurship

INTRA DEPARTMENT DRAWING COMPETITION

In connection with world soil day – 2021, the Department of Agricultural Engineering organized an Intra department drawing competition on 8th November 2021. The theme of drawing competition was "Soil Sustains Life". World Soil Day 2021 and its campaign "Halt soil salinization, boost soil productivity" aims to raise awareness of the

importance of maintaining healthy ecosystems and human well-being by addressing the growing challenges in soil management, fighting soil salinization, increasing soil awareness and encouraging societies to improve soil health.

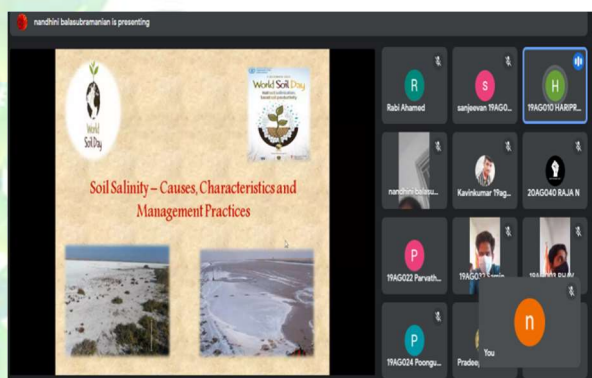


World Soil Day - drawing competition

WORLD SOIL DAY CELEBRATION 2021

Department of Agricultural Engineering organized the celebration in the thematic area of Halt soil salinization boosts soil productivity with a special lecture on Soil Salinity - causes, characteristics and management by Dr. B. Nandhinidevi, Assistant Professor (SS & AC), Mother Theresa College of Agriculture, Pudukkottai on 10th December 2021.

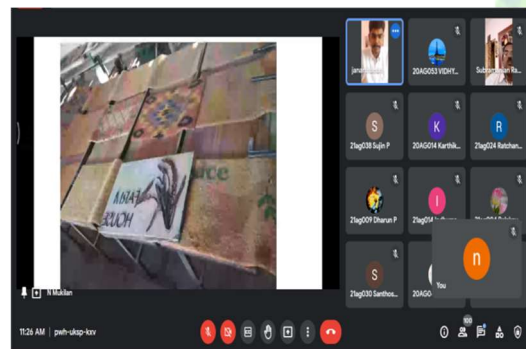
The guest speaker explained about problem in land salinity, which affects the crop growth and yield it also affect farmer's economic level. The problems and solution were given by her. She concluded her content with the theme of the soil day.



World soil day celebration event 2021

TURN A PERCEIVED RISK INTO ASSET

A self-driven activity "Turn a perceived RISK into ASSET" was organized by Department of Agricultural Engineering and Institutions Innovation Council (IIC) in an online platform on 18th December 2021. The resource person was Mr. S. Janarthanan, Managing Director, Sri KonguCoirs Pvt. Ltd., Solar, Erode. The entrepreneur and the young mind, Mr. S. Janarthanan gave a wonderful speech about his coir industry. Coir is made up of wastage of coco peat. Coir industry is one of the cost efficient, environmental friendly, social service to some of job lacking people. Coir is an eco-degradable material and eco-friendly. There are many products obtained from coir (like mat, fibre mats, matting rugs, coir geo textile, coir peat, garden article and other products. The interaction was great between the speaker and the department.



Event on entrepreneurship development

The best way to predict your future is to create it

- Abraham Lincoln

OPPORTUNITIES ON HIGHER EDUCATION

Department of Agricultural Engineering organizes a session on “opportunities on higher education with the resource person named Mr. Thiagarajan Thirunavukarasan, Director ,T.I.M.E., Erode on 21st December 2021. He was well experienced member as training and motivational speaker. He said that MBA graduates plays the leading role in company and also explains about the various job opportunities related to the course. He also pointed about importance of banking exams, UPSC, TNPSC exams.



Awareness program on Higher Education

In which we needed much knowledge in aptitude and problem-solving skills. In central government jobs there are different types of exams such as CGL, CHSL conducted by staff selection commission. In state government jobs we can appear for TNPSC jobs. As an agri graduate we will have an advantage of getting jobs. In state government as an agri sector is a growing sector. We can start and startup life mobitech. We can

implement our ideas in our own business. As these are the listed opportunities delivered to the students motivationally by the resource person.

AGRO TECH WARRIORS ASSOCIATION INAUGURATION AND NATONAL FARMERS DAY 2021

Agro Tech Warriors Association and Agricultural Engineering Department cordially organized “Agro Tech Warriors Association Inauguration and National Farmers Day 2021 celebrations. The special guest for the event is Dr. K. Suganya, Associate Professor, Department of Environmental Science, Tamil Nadu Agricultural University, Coimbatore. The guest said the important aspects and happenings of the day was the government announces fresh policies for the benefit of the farmers, Kisan seminars are arranged at the divisional, district, and block levels, Agricultural officers and agriculture scientists educate the newest data to the farmers in such functions, the farmers' seminars are conducted at various agriculture science venues and agriculture knowledge venues, the district rural development firm conducts seminars, fests, and exhibitions on several factors of agriculture and rural development and the farmers are educated about agriculture insurance schemes.

STARTUP - ORGANIC FOOD INDIA START UP DAY

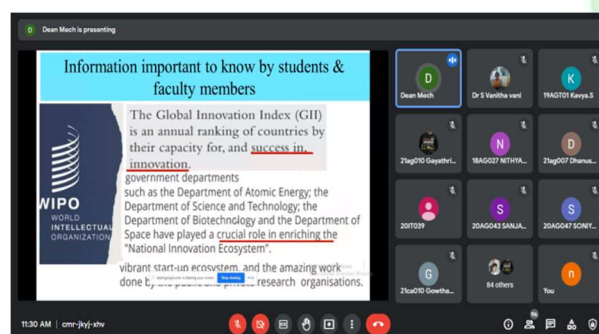
PRODUCTION UNIT

The management, the principal, the staff and the students of Agricultural Engineering Department conducted a field visit on "organic food production unit" in the guests own field names Ms. V. Jegathambal, organic Farmer, vaaikalmedu, erode on 28th December 2021. The visit was organized by Agro Tech Warriors Association with Department of Agricultural Engineering. The guest explains about the organic industry and its fastest growing agricultural segments in global level. She also given awareness on organic farm yield such vital benefits as preservation of soil's organic composition. Organic farmers utilize practices that: maintain and improve fertility, soil structure and biodiversity and reduce erosion. Reduce the risks of human, animal and environmental exposure to toxic materials. This visit gives the new conception for the participated students.



Event on startup organic food production unit

Agricultural Engineering department conducted an event on India startup day celebration 16th January 2022 through online mode. The session was about the Start-up India is an initiative of the Government of India. The campaign was first announced by Indian Prime Minister, Narendra Modi during his speech on 15th August 2015. The action plan of this initiative is focussing on three areas: Simplification and handholding, funding support and incentives and Industry-academia partnership and incubation. The discussion was about the students in focusing their own goal, developing innovative ideas, involving in entrepreneurial activities.



India start up day activities

MECHANIZED COCONUT HARVESTER

Department of Agricultural Engineering and Government of Tamil Nadu (AED), Erode conducted a demonstration event on mechanized coconut harvester at our Agri farm on 2nd March 2022 and the event was organized by Agro Tech Warriors

Association and Department of Agricultural Engineering. The demonstration was about its importance and the usage and also the efficiency of the equipment for harvesting coconut.



Field level training on mechanized coconut harvester utilization

STARTUP OPPORTUNITIES ON MUSHROOM CULTIVATION

The session on startup opportunities on mushroom cultivation was conducted by the Agriculture Engineering Department on 4th May 2022. This session was held by Mr. S. Saravanan, Entrepreneur cum Trainer, KVK, Erode. He discusses and explained about mushrooms importance, nutritional and medicinal aspects, export. This production has highest income generative activity. Also discussed about the package of practices for mushroom cultivation, production efficiency and the marketing strategies. The session gave a new vision for all the students to become as an entrepreneur.

PLACEMENT TRAINING

The Placement and Training center of our institution is headed by Thiru. S. Thirumoorthi, Secretary. The center organizes various training programs like mock interviews, personality development courses, seminars, group discussions, invited talks and road shows of prospective employers. This will help students to achieve success in the placement. The placement drive for the academic year (2021-22) have set an amazing record in the Placement history of Agriculture Engineering Department. Over the duration of 10 months, the institute have invited and hosted a plethora of various reputed companies.

Hundred percent of the placed willing of Agriculture Engineering students have been selected through various placement drive. Some of the top companies that recruited our students are CTS, Roots Irrigation System, Shri Pachaimal Agro Company, Covai Classical Engineering, MobiTech, etc. The average package offered was around 2.8 lakhs per annum, with the highest being 4.5 lakhs per annum. Such an impressive streak of placements even during the times of demonetization only goes on to prove the quality of the engineers taking shape at NEC Agri.

INTERNSHIP RECRUITMENT

Students are eligible to pursue internship for duration of one year in the industry starting from June to May. Internship stipend paid by these companies range from Rs. 10,000 to 20,000 per Month. Based on the performance of the students in the internship the students will be absorbed and offered full time employment option by the end of their internship period. This year companies like Roots Irrigation System, Aavin Dairy Milk , Jain Irrigation Netafim, Tamil Nadu Irrigation Equipment, Pasumai Irrigation Ltd. etc.

IN-PLANT TRAINING

In plant trainings are help the students to acquire in demand technical skills, helps to learn professional ethics or etiquette and helps in polishing the soft skills. Students get an opportunity to expose themselves to the actual work environment, contrasting with their text book theories. Having the proficiency to apply theories in practical work is very importance and in-plant trainings gives the right platform for testing your efficiencies. Engineering is a vast field, thorough the in-plant trainings students

can explore the different areas of their stream and gives them the chance to choose their path on which they will work with utmost sincerity and concentration. This strengthens their personal and professional character. With the in-plant training students can seek out new challenging assignment, take up individual initiatives and responsibilities to show that they can be the great asset to them. Therefore, through in-plant trainings the students not just learn work ethics but also secures a bright future for themselves. In our campus students are expected to undergo training for a period ranging from 28 days to 40 days in an industry. After completion of the training students have to submit their detailed report for their evaluation.

Students completed their in-plant training in following companies DharaneeAgrovator, Good Tech Pipe Products, Sri Saraswathi Rice Mill, John Deere, Cosmic Pvt. Ltd., Vethaa Milk Products, Skathi Sugars Private Ltd., Bhoomi Agro Solutions, Gomathi Engineering Services, Ponni Sugars Ltd., Sunraja Oil Industries Private Ltd., ULead Private Ltd., etc.

The success of the young entrepreneur will be thekey to India's transformation in the new millennium

- Dhirubhai Ambani

PAPER PUBLICATON DETAILS

- Aswin, R., G. Mano Bala, M. Dhananivetha and E. Manickavalli. "Solar Operated BrushCutter". International Journal of Mechanical Engineering, Vol. 6, No. 3, December 2021.
- Ashokkumar, S., R. Divyadharshini, R. Jeyaprakash and J. Thirumaran. "Analysing Smart Security and Monitoring Device Using IOT and Manual Method for Agriculture. International Journal of Mechanical Engineering, Vol. 6, No. 3, December 2021.
- Priya, K. K. S. M., M. S. Shivasamy, V. Sudhakar and G. Kiruthiga. "Incorporation of Sesbania Grandiflora Flower's Polyphenol Extract in Yoghurt and its Effect. AIP Conference Proceedings, Vol. 2387, 1 November 2021.
- Rubika, B., M. Sneka, N. Mukilan and N. Kiruthiga. "Performance Analysis of Forced Convective V- Groove Solar Air Heater for Drying Tomato Slices". International Journal of Mechanical Engineering, Vol. 6, No. 3, December 2021.
- Vanitha, S., V. Ravikumar, T. Rajammal and ShereneJenita. "Ammonia Volatilization from Flooded Rice Soil using CAS and OSC methods". Soil and Water Conservation, Vol. 20, Issue 2, 2021.
- Jeya Prakash, R., B. Soundara and S. Christian Johnson. Sustainability of No - Fine Concrete with Fibre Reinforcement. Journal of Environmental Protection and Ecology, Expect 6, Pg. No. 2131 - 2143, 2021.
- Rabi Ahmed, P. Naveen Kumar, A. V. Jayayprakash, V. L. Ramakrishnan and E. Sree Hariharan. "Experiental Invesitgation on Surface Modified Solar Air Heater". Scientific Hub of Applied Research in Engineering and Information Technology, ISSN: 2583-1976, 2021.
- Rakshana Begum, M., R. Sowbakiya and P. Sandhiyadevi. "Characteristics analysis of locally available agro residues". Scientific Hub of Applied Research in Engineering and Information Technology, ISSN: 2583-1976, 2021.
- Sandhiya devi, P., M. Endhuja, K. Giridharan, K. Kamli and S. Sakthi Vighnesh. "Design and Development of Sesame Threshing Unit". Scientific Hub of Applied Research in Engineering and Information Technology, ISSN: 2583-1976, 2022.

- Pradeep Kumar, P., M. Karpagam, S. Sasi, P. Sasikumar and S. Vanisha. "Design and Analysis of Tractor Mounted Groundnut Combined Harvesters". Scientific Hub of Applied Research in Engineering and Information Technology, ISSN: 2583-1976, 2022.
- Shanmathi, T., P. Sandhiya devi, M. Endhuja, K. Giridharan, K. Kamali and S. Sakthi Vignesh. "Design and Development of Sesame Threshing Unit". Advances in Engineering, Technology and Management (NCAETM), 2022.
- Harshavarthini, G., T. Keerthana and K. R. Nivethya devi. "Indigenous Traditional Knowledge for Pest and Disease Control in Cassava". Trends in Engineering Applications, 2022.
- Jobin Joseph, G. V. E. Dhayanithi, S. Abi Prasanth and M. Nandhakumar. "Grey Water Treatment for Non- Potable Usage". Advances in Engineering, Technology and Management (NCAETM), 2022.
- Pradeep Kumar, K., M. Karpagam, S. Sasi, P. Sasikumar and S. Vanisha. "Design and ANSYS Analysis of Tractor Mounted Groundnut Combine Harvester". Advances in Engineering, Technology and Management (NCAETM), 2022.
- Sandhiyadevi, P., S. Muhendran, B. Pavithra, M. Rakshana Begum and R. Sowbakiya. "Characteristics Analysis of Locally Available Agro Residues". Advances in Engineering, Technology and Management (NCAETM), 2022.
- Vanitha, S., K. Jai Surya, A. Kiruthic Kumaran, T. Sri Ramakrishna Bharani, M. Sriram Vishvanathan. "Hydropower Generation from Irrigation Pipeline". Advances in Engineering, Technology and Management (NCAETM), 2022.
- Pradeep Kumar, K., P. Bhuvanesh and K. Karthikeyan. "Semi-Automated Tapioca Harvester". Advances in Engineering, Technology and Management (NCAETM), 2022.

BOOK PUBLICATION DETAILS

- S. Vanitha, "Application of HEC-HMS Model for Runoff Dynamics" Agriculture and Environment E-Newsletter, AEN-2021-02-05-023, 2020-21.
- S. Vanitha, "Biodegradable Plastic Mulching" Agrigate Magazine, AG-12-09.
- K. K. Sri Mohana Priya "Value Addition in Bael Fruit" Agriculture and food E-Newsletter, ISSN-2581-8317, 2020-21.

INFRASTRUCTURE AND LEARNING RESOURCES



MEMORANDUM OF UNDERSTANDING

The general purpose of the MoU is to facilitate industry and institute interaction in terms of visits student projects, sharing the knowledge of expertise, research and consultancy cooperation between the parties



Indhu M won **first prize** in Quiz in National level students technical symposium



Roots Irrigation Private Limited, Coimbatore



Sports day men's football winners



Sports day shuttle winners



Second year student **E.Sharma** won **first prize** in meme creation at Tamil Nadu Agricultural University



Sports day department award winner

STUDENTS EXTRA CURRICULAR

ACTIVITIES

NAIL ART BY STUDENTS



உழைப்பும் நம்பிக்கையும் சேரும்
இடத்தில் ஏழ்மை இருக்காது ...



PLACED STUDENTS' DETAILS *up to may month*

BACHELOR OF ENGINEERING (AGRICULTURAL ENGINEERING)



DHAYANITHI G V E



KARPAGAM M



KEERTHANA T



NAVEENA P



NITHYA DEVI K R



ASHOK KUMAR S



SREE HARIHARAN E



ANTONY PREMCHAND M



ASWIN R



GIRIDHARAN K



KARTHIKEYAN K



KIRUTHIC KUMARAN A



MANOBALA G



MAYILSAMY G



MUHENDRAN S



NAVEEN KUMAR P



PARTHIPAN M



RAMANATHAN P



SASIKUMAR P



SRI RAMAKRISHNA BHARANI T



SRIRAM VISHWANATHAN M



KRISHNA KUMAR S



BHAVADHARANI N



ABIRAMI MEENAKSHI S K



ARTHI B



DHIVYADHARSHINI R



KAMALI K



PAVITHRA B



RAKSAHANA BEGUM M



RUBIKA B



SHALINI S



SHANMATHI T



SNEHA M



SOWBAKIYA R



Winners are not those who never fail but those who never quit. To succeed in your mission, you must have single-minded devotion to your goal. Failure will never overtake me if my determination to succeed is strong enough. Man needs his difficulties because they are necessary to enjoy success

ACADEMIC TOPPERS

BACHELOR OF ENGINEERING (AGRICULTURAL ENGINEERING)

(2021-2025 Batch)



RATCHANYA A



HARIPRIYA L M



ABINAYA G

(2020-2024 Batch)



PREETHA A R



NOUVSHIKA E T



MANORANJANI P

(2019-2023 Batch)



SINDHU S



RAKESH A



MADHUMITHA R

(2018-2022 Batch)



EINDHUJA M



NITHYA DEVI K.R



VANISHA S

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Nandha Engineering College

(An Autonomous Institution Affiliated to Anna University, Chennai & Approved by AICTE, New Delhi)

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