



NEWSLETTER

DEPARTMENT OF MECHANICAL ENGINEERING
GOVERNMENT ENGINEERING COLLEGE KOZHIKODE

NBA ACCREDITED B.TECH PROGRAM

AT A GLIMPSE

M T LAB INAUGURATION

ASSOCIATION INAUGURATION

INTERNATIONAL CONFERENCE
ATTENDED

PATENT

NEW EQUIPMENTS

NEW MEMBERS

STUDENT ACHIEVEMENTS

PLACEMENTS

TOPPERS

SENT OFF

FACULTY EDITOR

Dr.Jesseela S

STUDENT EDITOR

Induchoodan M
Adithya Chaladan

EDITORIAL BOARD

Meenakshy Jayaram M
Aswin P S
Hafiz Ali Kozhithodi
Mohammad Shehin

Manufacturing Technology Lab (Phase 2) Inauguration

The manufacturing technology lab for the Department of Mechanical Engineering was inaugurated by the honorable Mayor of Kozhikode Municipal corporation on 12 th May 2022. The inaugural ceremony was presided by Dr. Jayasree S, Chairperson, Health standing committee, Kozhikode corporation.



MECHANICAL ENGINEERING ASSOCIATION 2022 INAUGURATION



The activities of Mechanical Engineering Association of 2022 started its venture with its inauguration on 03/06/2022 in the presence Jisar Ittoli, GECK Mechanical batch 2003. The Department brochure and the new edition of our Department Newsletter were also released on the same day.

INTERNATIONAL CONFERENCE ON MECHANICAL ENGINEERING AND
ENERGY TECHNOLOGIES
URJA 2021
Organized By
Department of Mechanical Engineering
Under the Aegis of
YUKTHI 2021
International Conference on Emerging Trends in Engineering
24th to 26th September 2021
YUKTHI 2021

DEPARTMENT OF MECHANICAL ENGINEERING

OUR VISION

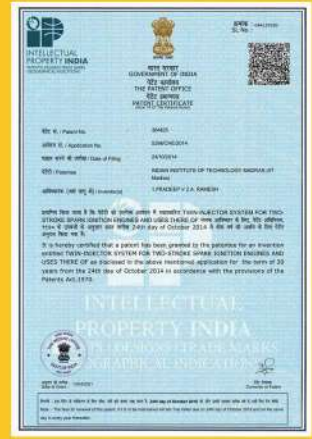
An inspiring centre to educate the youth towards technical and professional brilliance.

OUR MISSION

*Nurture youth to excel in academics and innovative research
Develop professionals to meet industrial and societal challenges
To involve in the progress of nation through advanced and sustainable technologies*



Prof. Francis J Emmatty, Department of Mechanical Engineering has been granted patent for the invention entitled **MULTI-PURPOSE WASTE PICKER**.



Prof. Dr. Pradeep V, Department of Mechanical Engineering has been granted a patent for the invention entitled **TWIN-INJECTOR SYSTEM FOR TWO-STROKE SPARK IGNITION ENGINES AND USES THEREOF**



New CRDI engine worth rupees 10 lakh with open ECU, multi-fuel, and combustion analysis capability has been installed as our first equipment in the Energy Systems lab in February.

NEW EQUIPMENTS



MILLING TOOL DYNAMOMETER



DIGITAL TOOLTIP TEMPERATURE INDICATOR

Shameem Haldon P who is currently pursuing his BTech in Mechanical Engineering created a mobile application named YUVA, a volunteer management software for managing organization and to conduct programs. This project is launched in association with Nehru Yuva Kendra Sangathan (NYKS) hosted by Sri V Muraleedharan, honorable Union Minister of State for External Affairs and Parliamentary Affairs, at Trivandrum. It is a complete solution for volunteer management based on LSGD system of India.



PLACED (B.Tech 2018 -2022)



THEERTHA P.
Walkaroo



HASHIR P.V.
TCS



HAFIZ ALI
KOZHITHODI
L&T



ARAVIND V. S.
Walkaroo



SREERAG
Cognizant



SANJAY P.V.
Speridian
Technologies



RANWIN
KUMAR
Cognizant



MUHAMMED
MUSTHAQ
Walkaroo

24th to 26th September 2021

CONFERENCE - URJA 2021

Organized By Department Of Mechanical Engineering Under The Aegis Of Yukthi 2021,
International Conference On Emerging Trends In Engineering

Keynote Speakers



DNA of Engineering Innovation

Dr. Swami Nathan Subramanian
Director of Innovation & Business Development,
The Axia Institute-Michigan State University, United States



Solid Oxide Fuel Cell & Negative Emission Technologies

Prof. Dr. P. V. Aravind
Professor & Chair of Energy Conversion,
University of Groningen, Netherlands.



Atomistic and Experimental Determination of the Structural and Thermophysical Properties of the Accident Tolerant Fuel Materials

Dr. Linu Malakkal (2008 ME Batch)
Computational Material Scientist Post Doctoral Research Associate
Idaho National Laboratory, United States

Paper Presented

- Sana P, Fathima and Kozhithodi, Hafiz Ali and P V, Hashir and Chammayil, Muhammed Shahid and Anand, Pranav and Babu C, Sajith and Ummer N T, Rashid, Self-Sanitizing Toilet Module (September 27, 2021).
- Joshy, Ananthu and B, Sreejith, Performance Analysis of Modified Nozzle-Diffuser Augmented Horizontal Axis Hydrokinetic Turbine (September 27, 2021).
- Kumar T.K., Satheesh and P.P., Sajith and Kumar K.P., Prajeeth, Heat Transfer Augmentation in Double Pipe Heat Exchanger: a Review on Passive Methods (September 27, 2021).
- John, Jils and S, Jesseela, Exergy Analysis in a Minichannel with Nanofluid (September 27, 2021).
- Kumar T.K., Satheesh and P.P., Sajith and Kumar K.P., Prajeeth, Thermo - Hydraulic Analysis of Air to Water Heat Exchanger with Turbulence Enhancement (September 27, 2021).
- A.V, Amaldev and Babu, Debashish and C T, Adhil and Ali K K, Amjad and V, Pradeep, Use of Alternate Refrigerants in Vortex Tubes for Improved Performance A Simulation Approach (September 27, 2021).

Dept. Covener : Dr. Jesseela S., Prof. Dept. ME GECK

Dept. Co-Ordinators : Dr. Sajeeb A. M., Assoc. Prof. Dept. ME GECK
Prof. Arun Shal U. B., Asst. Prof. Dept. ME GECK

New Members to Our family



Prof. Subin Michael



Prof. Anees Muhammed



IFTAAR 2022

RSL 2022

OUTGOING BATCHES

GOVERNMENT ENGINEERING COLLEGE KOZHIKODE ALUMNI (GECKA)
B.Tech Mechanical Engineering (2018-2022)



GOVERNMENT ENGINEERING COLLEGE KOZHIKODE ALUMNI (GECKA)
Mechanical Engineering M.Tech(2020-2022)



RETIREMENT : March 2022



Balakrishnan N
Workshop Superintendent

TOPPERS 2021



B-TECH
Aadhithiya Krishna O M
Cgpa : 9.51



M-TECH
Satheesh Kumar T K
Cgpa : 9.75

STUDENT ACHIEVEMENT



Sneha K S
Selected for NSS
National Integration Camp

RESEARCH AND PUBLICATIONS

- Biju Illathukandy, Po-Chih Kuo, Wei Wu, Jo-Shu Chang, Energy, exergy, and environmental analyses of renewable hydrogen production through plasma gasification of microalgal biomass, *Energy*, Volume 223, 2021, 120025, ISSN 0360-5442, <https://doi.org/10.1016/j.energy.2021.120025>
- Illathukandy, B, Saadabadi, SA, Aravind, PV. Direct internal methane reforming in biogas fueled solid oxide fuel cell; the influence of operating parameters. *Energy Science & Engineering*, 2021; 9: 1232– 1248. <https://doi.org/10.1002/ese3.887> (2021). Wiley Online Library
- Biju Illathukandy, Po-Chih Kuo, Chi-Hsiu Kung, Jo-Shu Chang, Wei Wu, Process simulation development of a clean waste-to-energy conversion power plant: Thermodynamic and environmental assessment, *Journal of Cleaner Production*, Volume 315, 2021, 128156, ISSN 0959-6526, <https://doi.org/10.1016/j.jclepro.2021.128156>
- Biju Illathukandy, Henry Wasajja, S. Ali Saadabadi, Ralph E. F. Lindeboom, Jules. B. Lier, Purushothaman Vellayani Aravind, The effect of H₂S on internal dry reforming in biogas fueled solid oxide fuel cells, *Energy Science & Engineering*, 10, 2, (374-383) <https://doi.org/10.1002/ese3.1021>, (2021). Wiley Online Library
- P.K. Jithesh, A model based on cellular automata for investigating the impact of lockdown, migration and vaccination on COVID-19 dynamics, *Computer Methods and Programs in Biomedicine*, 211 (2021), 106402.
- Emmatty, F.J. and Panicker, V.V., 2022. Workplace-based assessment and intervention design for waste sorting tasks in a developing country. *Sādhanā*, 47(1), pp.1-13.

- Emmatty, F.J. and Panicker, V.V., 2022. A Study on Waste Loading Task and Influence of Waste Container Size. In *Technology-Enabled Work-System Design* (pp. 121-129). Springer, Singapore.
- Emmatty, F.J., Panicker, V.V. and 2022. Exploratory Study on Occupational Health and Work Environment Among Waste Management Workers in Kerala. In *Technology Enabled Ergonomic Design* (pp. 267-276). Springer, Singapore.
- Emmatty, F.J., Panicker, V.V. and Baradwaj, K.C., 2021. Ergonomic evaluation of work table for waste sorting tasks using digital human modelling. *International Journal of Industrial Ergonomics*, 84, p.103146.
- Nidhin Sreedas E, Francis J Emmatty, Performance Improvement through kaizen and Failure mode and effect analysis (FMEA) in an academic institution - ICAME 21,TKM college of Engineering, Kollam, Kerala, India, 16-18 December 2021
- Arun Shal, U.B., Ramachandran, A., Ramachandran, S. (2022). Finite Time Thermodynamic Investigation of a Solar-Boosted Irreversible OTEC. In: Kolhe, M.L., Jaju, S.B., Diagavane, P.M. (eds) *Smart Technologies for Energy, Environment and Sustainable Development*, Vol 1. Springer Proceedings in Energy. Springer, Singapore. https://doi.org/10.1007/978-981-16-6875-3_68
- U B, Arun Shal and Ramachandran, Aravind and Ramachandran, Siddharth, Optimization of a Hybrid Solar-OTEC-MED Plant (September 27, 2021). Available at SSRN: <https://ssrn.com/abstract=3989156> or <http://dx.doi.org/10.2139/ssrn.3989156>