

ACADEMIC YEAR 2019-20

FACULTY PUBLICATIONS IN INDEXED JOURNALS

- ∞ **Dr. Shunmugesh K**, published a paper on "Measurement of Tensile Properties and Hardness of Friction Stir Welded Aluminium Alloy AA1200 ", Materials Today Proceedings, Vol 24 2214-7853, Jan 2020 (Scopus indexed)
- ∞ **Dr. Shunmugesh K**, published a paper on "Areca fiber reinforced LLDPE Biocomposite", Materials Today Proceedings, Vol 24 and 2214-7854 Jan 2020 (Scopus indexed)
- ∞ **Dr. Shunmugesh K**, published a paper on "Taguchi Grey Relational Analysis based Optimization of Micro-Drilling Parameters on Carbon Fiber Reinforced Plastics. ", Materials Today Proceedings, Vol 24 and 2214-7855, Jan 2020 (Scopus indexed)
- ∞ **Dr. Shunmugesh K**, published a paper on "Investigation on Crash Analysis of a Frontal Car Bumper", Transactions of the Indian Institute of Metals, Vol 72(10) and 0972-2815, Jan 2020 (SCI indexed)
- ∞ **Dr. Shunmugesh K, Mr. Arun Raphel** Optimization of drilling parameters of fiber reinforced polymer composites, Technology & Future – Journal of Science & Technology, Volume 1 , 2019
- ∞ **Dr. Sajan T. John**, published a paper on "An Integrated Supply Chain Model for Export Commodities for Indian Container Goods", European Transport Conference, Association for European Transport, Dublin Castle, Ireland, October 2019
- ∞ **Arun K**, published a paper on "Fabrication of GFRP Composite and To Analyse Its Delamination Factor in Drilling Using Three Different Tool Geometries", International Journal of Scientific & Technology Research (IJSTR) Volume 9 - Issue 4, April 2020 (Scopus indexed)
- ∞ **Eldhose Kurian**, presented a paper on "Lifting Equipment for Load Lifting", Proceedings of International Colloquium on Recent Trends in Engineering (IC@MACE)-2020, March 2020
- ∞ **Eldhose Paul**, presented a paper on "Prosthetic hand using linkage mechanism", Proceedings of International Colloquium on Recent Trends in Engineering (IC@MACE)-2020, March 2020
- ∞ **Eldhose Kurian**, presented a paper on "Design of Nutmeg Cracker", Proceedings of International Colloquium on Recent Trends in Engineering (IC@MACE)-2020, March 2020
- ∞ **Lovin Varghese**, presented a paper on "On road flood rescue vehicle", Proceedings of International Colloquium on Recent Trends in Engineering (IC@MACE)-2020, March 2020
- ∞ **Lovin Varghese**, presented a paper on "Autonomous rescue and evacuation suit (ARES)", Proceedings of International Colloquium on Recent Trends in Engineering (IC@MACE)-2020, March 2020
- ∞ **Lovin Varghese**, presented a paper on "Integrated pedal powered grain milling and threshing machine", Proceedings of International Colloquium on Recent Trends in Engineering (IC@MACE)-2020, March 2020
- ∞ **Arun K. R**, presented a paper on "Automatic Banana tree planter", Proceedings of International

Colloquium on Recent Trends in Engineering (IC@MACE)-2020, March 2020

- ∞ **Arun K. R.**, presented a paper on “Bicycle operated water Filtration system”, Proceedings of International Colloquium on Recent Trends in Engineering (IC@MACE)-2020, March 2020
- ∞ **Arun Raphel** published a paper on "High entropy phenomena induced low thermal conductivity in BiSbTe_{1.5}Se_{1.5} thermoelectric alloy through mechanical alloying and spark plasma sintering”, Materials Letters. 269 (2020), 127672 pp.1–4, March 2020 (SCI indexed)
- ∞ **Nibin B.**, presented a paper on “Robotic Assist for Walking Disability”, Proceedings of International Colloquium on Recent Trends in Engineering (IC@MACE)-2020, March 2020
- ∞ **Nibin B.**, presented a paper on “Biodegradable Plastic”, Proceedings of International Colloquium on Recent Trends in Engineering (IC@MACE)-2020, March 2020
- ∞ **Abin Paul**, presented a paper on “Semiautomatic power hammer”, Proceedings of International Colloquium on Recent Trends in Engineering (IC@MACE)-2020, March 2020
- ∞ **Abin Paul**, presented a paper on "Experimental study of refrigeration cycle using diffuser pipe and application of nano particles”, Proceedings of International Colloquium on Recent Trends in Engineering (IC@MACE)-2020, March 2020
- ∞ **Nidheesh K.**, presented a paper on “Biofuel Production from water Hyacinth”, Proceedings of International Colloquium on Recent Trends in Engineering (IC@MACE)-2020, March 2020
- ∞ **Basil Baby**, presented a paper on “Poultry Raking Agro Machine”, Proceedings of International Colloquium on Recent Trends in Engineering (IC@MACE)-2020, March 2020
- ∞ **Akash Paul Savio**, published a paper on “Automatic River Cleaning Machine”, International Journal of Engineering Sciences & Research Technology, Vol 9(5), ISSN: 2277-9655, May 2020
- ∞ **Akash Paul Savio**, presented a paper on “Eco-Friendly Sewage Cleaning System”, Proceedings of International Colloquium on Recent Trends in Engineering (IC@MACE)-2020, March 2020
- ∞ **Akash Paul Savio**, presented a paper on “Automatic River Cleaning Machine”, Proceedings of International Colloquium on Recent Trends in Engineering (IC@MACE)-2020, March 2020
- ∞ **Martin Jose**, presented a paper on “Sustainable banana stem utility vehicle”, Proceedings of International Colloquium on Recent Trends in Engineering (IC@MACE)-2020, March 2020

FACULTY DEVELOPMENT PROGRAMS ATTENDED BY THE FACULTY

- ∞ **Dr. Shunmugesh K** attended a Faculty Development Programme on “Advances in Mechanical Engineering: A Research Perspective” organized by MGIT, Telangana during 6-10 June 2020
- ∞ **Dr. Shunmugesh K, Mr. Arun Raphel** attended a Faculty Development Programme on “Advanced Materials, Machining and Characterization” organized by SRIMVIT, Bangaluru during 6-10 July 2020
- ∞ **Dr. Sajan T. John** completed an International- Professional Improvement Programme on Grammar

and Punctuation organized by University of California, Irvine through Coursera

- ∞ **Dr.Sajan T. John, Rakesh Jose** completed an International- Professional Improvement Programme on the data scientist Tool box organized by Johns Hopkins University, Baltimore, Maryland through Coursera
- ∞ **Vinoj K** completed an 8 weeks Course on “Robotics” organized by IIT Kharagpur through National Programme on Technology Enhanced Learning (NPTEL)
- ∞ **Vinoj K** attended an International Workshop on “On-Grid Photovoltaic Power Generation System” organized by EEE Department, VJCET in association with Senior Experten Service (SES), Germany.
- ∞ **Vinoj K** attended a Faculty Development Programme on “Novel Materials and it’s Industrial application” organized by Centre of excellence for Composite research, Karpagam College of Engineering, Coimbatore
- ∞ **Arun K, Lovin Varghese, Nidheesh K** attended Faculty Development Programme on” Advances in Bio Engineering” organized by Toc.H Institute of Science & Technology during 6-19 January 2020
- ∞ **Abraham Antony** attended Faculty Development Programme on “Renewable Energy Sources: Conversion Storage and Application” organized by Mechanical Engineering Department, Jyothi College Of Engineering And Technology during 6-10 January 2020
- ∞ **Abin Paul** attended Faculty Development Programme on” Entrepreneurship” organized by AJCE, Kanjirppally during 9-12 December 2019
- ∞ **Frenosh K Francis, Abin Paul** attended Short Term Training Programme on” Research Methodology” organized by Department of Mechanical Engineering, AJCE, Kanjirppally during 9-12 December 2019
- ∞ **Lovin Varghese** attended Faculty Development Programme on” Simulation of Thermal management of Batteries and Power Converter” organized by Toc.H Institute of Science & Technology on 28 May 2020
- ∞ **Arun K. R** attended an International conference “I-DAD 2020” on organized by Vel Tech, Madras during 24-26 February 2020
- ∞ **Arun K. R** attended a Short-Term Training Program on “Multiphase Flow” organized by IIT Madras
- ∞ **Rakesh Jose, Arun Raphel, Martin Jose** attended Faculty Development Programme on” Emerging Areas in Manufacturing” organized by Department of Mechanical Engineering, VimalJyothi Engineering College during 25-30 May 2020
- ∞ **Rakesh Jose** attended a Faculty Development Programme on “Artificial intelligence” organized by IIT Nagpur on 24-28 April 2020
- ∞ **Rakesh Jose** completed an International- Professional Improvement Programme on Getting and Cleaning Data organized by Johns Hopkins University, Baltimore, Maryland through Coursera
- ∞ **Rakesh Jose** completed an International- Professional Improvement Programme on Exploratory Data Analysis organized by Johns Hopkins University, Baltimore, Maryland through Coursera
- ∞ **Rakesh Jose,** completed an International- Professional Improvement Programme on R programming organized by Johns Hopkins University, Baltimore, Maryland through Coursera

- ⌘ **Arun Raphel** attended a Faculty Development Programme on “Managing Online Classes and Co-Creating Moocs” organized by Ramanujan College, Delhi University during 20th April – 6th May 2020
- ⌘ **Arun Raphel** attended a Faculty Development Programme on “Research Challenges in Mechanical Engineering” organized by MED, SVCET, Chittoor during 22-27 June 2020
- ⌘ **Arun Raphel** attended a Faculty Development Programme on “Multi-Dimensional Scaling from science to Technology- Accelerating Innovation” organized by Dr.MGR Educational and Research Institute during 9-13 June 2020
- ⌘ **Arun Raphel** attended a Faculty Development Programme on “Imminent Trends in Mechanical Engineering” organized by KPRIR, Hyderabad during 29th June – 3rd July 2020
- ⌘ **Arun Raphel** attended a Faculty Development Programme on “Product Design & Novelty” organized by Dr Vithalrao Vikhe Patil College of Engineering during 6-10 June 2020
- ⌘ **Arun Raphel** attended a Faculty Development Programme on “Contemporary Developments in Manufacturing Processes, Sustainable Manufacturing and Industrial Technologies” organized by Pragati Engineering College during 9-13 June 2020
- ⌘ **Arun Raphel** attended a Workshop on “Intellectual property right, Technology development and Startups” organized by IPR Cell, NIT Trichy during 9-13 December 2020
- ⌘ **Arun Raphel** attended a Faculty Development Programme on “Effective Research writing using Latex” organized by Pragati Engineering College during 22-27 June 2020
- ⌘ **Nibin B** attended Faculty Development Programme on “Creative Teaching and Makers Workshop – An Interdisciplinary approach to Teaching Methodologies” organized by FISAT Angamaly during 10-12 July 2020
- ⌘ **Nidheesh K** completed a 2 weeks Course on “IC Engines and Gas Turbines” organized by National Programme on Technology Enhanced Learning (NPTEL)
- ⌘ **Martin Jose** attended Faculty Development Programme on “Outcome Based Education, NBA Approach” organized by DVVPCE Ahamednagary on 11-12 June 2020
- ⌘ **10 Faculty members of Mechanical Engineering Department** attended a KTU Funded Faculty Development Programme on “Tools, Techniques & Models for Scientific Research” organized by Department of Mechanical Engineering in association with Centre for Research and Development, VJCET during 22– 26 July 2019
- ⌘ **All faculty members** of Mechanical Engineering Department attended a two days International Seminar on “Materials: Engineering for Sustainability” organized by Mechanical Engineering Department in association with Centre for Research and Development, VJCET during 29– 30 July 2019.

EVENTS ORGANIZED BY THE DEPARTMENTS IN ASSOCIATION WITH R & D

- ∞ **A five-day KTU funded FDP** was conducted by Department of Mechanical Engineering in association with Centre for Research and Development, VJCET, on “Tools, Techniques & Models for Scientific Research” from 22– 26 July 2019.



- ∞ **A two-day International Seminar** was conducted by Department of Mechanical Engineering in association with Centre for Research and Development, VJCET on "Materials: Engineering for Sustainability" from 29– 30 July 2019. Prof. Dr. Rajan Ambat from Division of Materials and Surface Engineering, Technical University of Denmark inaugurated the seminar.

- ∞ **Five-day Short-Term Training Program** on "Programming and Operation of Computerized Numerical Control Lathe" was organized by Mechanical Engineering Department in association with Centre for Research and Development, VJCET from 15-19 July 2019



- ∞ **Expert talk** on "Nuclear Power" For ME Students at MBA Seminar hall was organized by Mechanical Engineering Department in association with Centre for Research and Development, VJCET from 19th September 2019

- ∞ **One day Workshop** on "Practical Physics" for plus two students was organized by Mechanical Engineering Department in association with Centre for Research and Development, VJCET on 19th October 2019



- ∞ **Two days technology enrichment program**, "Gyanoday'19" for plus two students was organized by Mechanical Engineering Department in association with Centre for Research and Development, VJCET on 31st October 2019 - 01st November 2019
- ∞ **Webinar** on "3D Printing and Medical Applications" was organized by Mechanical Engineering Department in association with Centre for Research and Development, VJCET on 15th June 2020
- ∞ **Webinar** on "Fuel Cells – Energy of the Future" was organized by Mechanical Engineering Department in association with Centre for Research and Development, VJCET on 16st June 2020
- ∞ **Webinar** on "Hints for writing a research Paper" was organized by Mechanical Engineering Department in association with Centre for Research and Development, VJCET on 19th June 2020
- ∞ **Webinar** on "Role of Mechanical Engineer in Society Development" was organized by Mechanical Engineering Department in association with Centre for Research and Development, VJCET on 19th June 2020
- ∞ **Webinar** on "Laser Surface Modifications (Additive Technology) & Design Outlook in an Industry (HMT)" was organized by Mechanical Engineering Department in association with Centre for Research and Development, VJCET on 23rd June 2020
- ∞ **Webinar** on "Wheeled Mobile Robotics – Path Planning and Control" was organized by Mechanical Engineering Department in association with Centre for Research and Development, VJCET on 24th June 2020
- ∞ **Webinar** on "Role of Operations and Supply Chain Management in the Uncertain World" was organized by Mechanical Engineering Department in association with Centre for Research and Development, VJCET on 01st July 2020

CONSULTANCY SERVICES

1. **Department of Mechanical Engineering** is extending consultancy services for carrying out operations like turning, form turning, threading etc using CNC Lathe Facility towards Tuner Factory & Engineering, Pattimattom.
2. **Mr. Rakesh Jose**, Assistant Professor, Mechanical Engineering Department was appointed as the Technical Advisor- Consultant of DQMS Engineering Pvt Ltd., Bangalore ; for the Product Prototype development of an Outdoor Solar Saccum Sweeper

FUNDED PROJECTS

- ⌘ Department of Mechanical Engineering received a funding of Rs.18,43,000 from AICTE under Modernisation And Removal of Obsolenscence (MODROBS) scheme for the CNC Milling Machine. Project Coordinator: HOD, Mechanical Engineering Department.
- ⌘ Project entitled “AGR-E” by Mr. Firoz S, Mr. Erfan Muhammed CK, Mr. Bilal Shamsudhin, Mr. Sanjay MS Students of S7 ME A recieved project funding of Rs.2,00,000 as Idea grant, Scale up grant and Productisation grant from Kerala Start Up Mission - Project Guide: Mr. Nidheesh K, Assistant professor, MED.
- ⌘ Project entitled “Fully automated Weed Controller” by Mr. Kevin G, Mr. Sagar Vincent, Mr. Aldrin Baby, Mr.Ammer E A of S7 ME A got project funding of Rs.20,000 under KSCSTE-INNOVATE scheme funded by Kerala State Council for Science Technology and Environment, . Project Guide: Mr. Unnikrishnan T.G, Assistant professors, MED.
- ⌘ Project entitled “Robotic Assist for Walking Disability” by Mr. Muhammed Salih, Mr. Midhun Babu, Mr. Naveen B, Mr.Anandhu Sabu of S7 ME A got project funding of Rs.10,000 under Students Project scheme funded by Kerala State Council for Science Technology and Environment, . Project Guide: Mr.Nibin B, Assistant professors, MED.
- ⌘ Project entitled “Portable Nutmeg Seperator-Nut-X” by Mr. Albin Paul, Mr. Eldhose Raju, Mr.Harikrishnan A S and Mr.Jipil P Chettoor, of S7 ME A got project funding of Rs.10,000 under Students Project scheme funded by Kerala State Council for Science Technology and Environment, Project Guide: Mr.Eldhose Kurian, Assistant professors, MED.



☞ Project entitled “Portable Nutmeg Separator-Nut-X” by Mr. Albin Paul, Mr. Eldhose Raju, Mr. Harikrishnan A S and Mr. Jipil P Chettoor, of S7 ME A got project funding of Rs.7,000 under Yuva Mastermind scheme funded by Malayalamarama , Startup Valley -Amaljyothi TBI . Project Guide: Mr. Eldhose Kurian, Assistant professors, MED.