

Aerra Kiran Kumar M. Tech (CAD/CAM), (PhD)

ACADEMIC HONORS AND AWARDS

- Best Faculty Award in 2014.
- Participated as a Fest Coordinator “Mechatalon’14” held at “TKR college of Engg & technology, Hyderabad.

PROFESSIONAL DEVELOPMENT

Technical Packages

- ❖ CATIA P5 V15,
- ❖ Solid Works,
- ❖ ANSYS Structural.

SUBJECTS TAUGHT

Theory

- Engineering Graphics.
- Machine tools.
- Design of Machine Members-II.
- CAD/CAM.
- Design for Manufacturing and Assembly.
- Manufacturing Process

Practical

- Engineering Workshop
- Machine tools Lab.
- CAD/CAM Lab.
- Production Technology Lab.
- Engineering Metrology Lab

HIGHLIGHTS OF PROFESSIONAL EXPERIENCE

- Currently I'm working as Assistant Professor in department of Mechanical Engineering at TKR College of Engineering and Technology (TKRCET), Hyderabad.
- My job is
 - teaching Mechanical Engineering subjects to classes averaging 60 students. Supervising students in their major and mini projects.
 - worked as Time Table incharge for the department.
 - working as Lab incharge, class teacher and mentor.

- I was appointed as one of the Coordinators for the National Board of Accreditation, carried out in the Department of Mechanical Engineering, TKRCET.
- I participated in MSME EXPO-2011 organized by Government of India, MSME.
- I organized one-week FDP on Pedagogical Training at TKRCET, Hyderabad, between 9th and 13th Dec, 2019.
- I organized a one-week Entrepreneur Development Program sponsored by NSIC at TKRCET from 2nd to 7th Dec 2019.
- I worked as Incharges for the Business Incubation Centre (BIC), TKRCET, Approved by Government of India, MSME. My job was to call for potential proposals that could be incubated at TKRCET which would be funded by the Government of India. The job also included scrutinizing the proposals at the institutional level and forwarding it to the national level Scrutinizing committee.
- At Brilliant College of Educational Society's Group of Institutions (BRIG), apart from regular teaching I had taken charge for various units and organized workshops and symposiums.
 - In-charge for the department of Mechanical Engineering, BRIG
 - In-Charge R&D Cell, Mechanical Engineering Department, BRIG. My job as an in-charge at the cell was to motivate students and faculty of the department to conduct Research. I was also involved at developing interaction with the local industry so as to have industry – instate interaction

Conferences (7)

- M. Rama Rao, A. Kiran Kumar Yadav, G. Sai Krishna Prasad :2015 “Design and Fabrication of Rotary Friction Welding on Lathe Machine” International Journal of Engineering Research and Applications(IJERA).
- M. Rama Rao, A. Kiran Kumar Yadav, G. Sai Krishna Prasad “Design and Fabrication of Rotary Friction Welding on Lathe Machine” national conference on “Developments, Advances & Trends in Engineering Sciences (NCDATES-2K15)” on 9th to 10th January 2015 CMR Engineering College, Hyderabad.
- K. Phaneendra Kumar, G. Srikar, A. Kiran Kumar Yadav & P. Bhaskara Rao “Experimental Investigations on Flexural Behaviour of Glass Fiber Reinforced Composite Containing Artificial Delamination”. International Journal of Mechanical and Production, Engineering Research and Development (IJMPERD), ISSN (P): 2249-6890; ISSN (E): 2249-8001, Special Issue, Feb 2019, 86-91
- Phaneendra Kumar Kopparthi, Kiran Kumar Yadav Aerra, Srikar Gemaraju, Bhaskara Rao Pathakokila, Suresh Gamini, “Tensile and Flexural Properties of Delaminated Woven E-

Glass/Epoxy Composites” Journal of Mechanics of Continua and Mathematical Sciences, ISSN (Online): 2454 -7190 Vol.-15, No.-7, July (2020) pp 436-442 ISSN (Print) 0973-8975.

- Phaneendra Kumar Kopparthi, Kiran Kumar Yadav Aerra, Srikar Gemaraju, Bhaskara Rao Pathakokila, Suresh Gamini, “A Review on Surface Displacements and Strains Using Digital Image Correlation Techniques”. Journal of Mechanics of Continua and Mathematical Sciences, ISSN (Online): 2454 -7190 Vol.-15, No.-7, July (2020) pp 426-435 ISSN (Print) 0973-8975.
- Kiran Kumar Yadav Aerra, Srikar Gemaraju, “Experimental investigations of mechanical properties in glass epoxy composites filled with TiO₂ particles”. A two-day national level e-conference on Recent Advances in Technology & Engineering (CRATE-2020)
- Phaneendra Kumar Kopparthi, Kiran Kumar Yadav Aerra, Srikar Gemaraju, Bhaskara Rao Pathakokila, “Mechanical properties of Glass Fibre Reinforced composites in addition to TiO₂ particles” A two-day International conference on (ICRAME-2021), Prasad V.Potluri siddhartha institute of technology, Vijayawada.

Journals (1)

- Phaneendra Kumar Kopparthi, Kiran Kumar Yadav Aerra, Bhaskara Rao Pathakokila & Suresh Gamini, “Bending and viscoelastic behaviour of delaminated woven E-glass/epoxy composite”. Australian Journal of Mechanical Engineering, doi.org/10.1080/14484846.2020.1794506.

Workshops and Training Programs

- Coordinated an MSME two-week Workshop titled Entrepreneurship Awareness Program sponsored by Ni-MSME at TKRCET from 24th Feb to 7th March 2020.
- Co-ordinated a two-day workshop on Composite Materials and Manufacturing Processes at TKRCET, Hyderabad, between 12th and 13th Nov, 2014.
- Organized a one-week AICTE sponsored FDP on 3D Printing & Design at TKRCET, Hyderabad, between 4th and 8th Jan, 2020.

PATENT DETAILS:

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| Application No. | 202141026133 A |
| Title | DESIGN AND ANALYSIS OF DRY CYLINDER LINERS OF COATED AND NONCOATED MATERIALS USED IN DIESEL ENGINES |
| Publication Date: | 02/07/2021 |

Faculty Development Programs

Attended (12)

| S.No | Date | Title | Organization | Place |
|------|------------------------|--|--------------|-------|
| 1 | 5-9 July 2021 | AR & VR in Engineering Applications (ATAL FDP) | ANURAG | HYD |
| 2 | 28 June to 4 July 2021 | Social Robotics & AI (E&ICT NIT Jabalpur, Govt of India) | NIT Jabalpur | Patna |

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| 3 | 21-25 June 2021 | Innovation in Materials and manufacturing process | VEMU | CHITTOOR |
| 4 | 1-14 June 2021 | Advances in Composite materials, manufacturing process and Opt Techniques | AMET University | Chennai |
| 5 | 24-29 May 2021 | Recent Innovations in Design and Manufacturing | MREC | HYD |
| 6 | 10-14 May 2021 | Novel Materials and manufacturing process in Industrial applications | NGP Institute | Chennai |
| 7 | 22-26 March 2021 | Strategic Methods and tools for product Development (AICTE STTP II) | SRKR | AP |
| 8 | 13-17 March 2021 | Fundamental and applications of CFD in Fluid-thermal systems (AICTE) | SILCHAR | ASSAM |
| 9 | 22-26 Feb 2021 | Strategic Methods and tools for product Development (AICTE STTP I) | SRKR | AP |
| 10 | 15-20 Feb 2021 | Innovations in Materials and Industrial Automation (AICTE STTP-III) | NGP Institute | Chennai |
| 11 | 8-13 Feb 2021 | DOE & Optimization Techniques (AICTE STTP-III) | VEMU | CHITTOOR |
| 12 | 25-30 Jan 2021 | Advances in Composite materials and applications | CMRIT | HYD |
| 13 | 18-22 Jan 2021 | Robotics (ATAL FDP) | KRKC | Chennai |
| 14 | 4-8 January 2021 | 3D Printing & Design (ATAL FDP) | TKRCET | HYD |
| 15 | 3-7 Aug 2020 | Managing Environment through sustainable manufacturing | VIGNAN(VITS) | HYD |
| 16 | 14 to 27 nov, 2019. | Precision Engineering and Machining Programme | Anurag Group | |
| 17 | 9-13 Dec 2019 | Pedagogical Training | TKRCET | HYD |
| 18 | 1-6 July 2019 | Composite Materials: An Emerging Alternative to Engineering Applications | VIGNAN(VITS) | Hyd |
| 19 | 24-28 June 2019 | Robotics & AI (E&ICT) | NITW | Warangal |
| 20 | 12-17 Nov 2018 | Design of Experiments using Taguchi Approach | TKRCET | HYD |
| 21 | 26-30 June 2018 | Composite Materials | Vignan University | Guntur |
| 22 | 7-14 Feb 2018 | Design of Machine Elements | CMRIT | HYD |
| 23 | 13-18 Nov 2017 | Outcome Based Education(E&ICT) | TKRCET | HYD |
| 24 | 26-May-17 | Challenges in joining of Advanced materials (NFC Hyderabad) | IIW | Hyd |

Area of Present Research Work:

- Filament Wound Composites,
- Failure Behaviour of Composites and Structural applications of Composites.
- Delaminated Composite.
- Natural Fiber Composites.