



Department of Mechatronics Engineering Newsletter May 2024 -September 2024



Kumaraguru College of Technology

VISION

The vision of the college is to become a technical university of International Standards through continuous improvement.

MISSION

Kumaraguru College of Technology (KCT) is committed to providing quality Education and Training in Engineering and Technology to prepare students for life and work, equipping them to contribute to the technological, economic, and social development of India. The College pursues excellence in providing training to develop a sense of professional responsibility, social and cultural awareness, and set students on the path to leadership

Department of Mechatronics Engineering

VISION

To achieve excellence in academic and industrial automation research and innovative product development driven by mechatronics systems.

MISSION

Impart the right blend of knowledge and skills to students and enable them to apply it in real-life situations. Motivate the students towards interdisciplinary research to cater to the local and global needs. Achieve innovation in developing industrial products with social responsibility.

Department Activities

The Department of Mechatronics Engineering, KCT, organized a Guest Lecture on *Kinematics and Dynamics of Fluid Flow* on 20th August 2024 at KCT. The event was coordinated by Mr. J. Sivaguru for second-year Mechatronics students. The resource person was Dr. Dinesh D, Assistant Professor III, Bannari Amman Institute of Technology, who has taught this course multiple times. A total of 72 participants attended, including 2 faculty members and 70 students. The lecture focused on fluid kinematics and dynamics with practical applications. The key outcome was enabling students to calculate flow rate using fluid kinematics and dynamics concepts.



Students' activities and achievements

- **Ragunandan M (22BMC034)** secured the **2nd Prize** at the *21st Tamilnadu State Wushu Championship* held on 22–23 June 2024, organized by the Tamil Nadu Wushu Association.
- **Obuli Sri Aditya A (22BMC030)** won the **2nd Prize** at the *21st Tamilnadu State Wushu Championship* on 22–23 June 2024, organized by the Tamil Nadu Wushu Association.
- **Raja Gopal L (22BMC035)** achieved the **3rd Prize** at the *21st Tamilnadu State Wushu Championship* on 22–23 June 2024, organized by the Tamil Nadu Wushu Association.
- **Ragunandan M (22BMC034)** also won the **2nd Prize** at the *14th Coimbatore District Wushu Championship* held on 8 June 2024, conducted by the Coimbatore District Wushu Association.
- **Obuli Sri Aditya A (22BMC030)** secured the **1st Prize** in the *Double Weapon category* at the *14th Coimbatore District Wushu Championship* on 8 June 2024.
- **Raja Gopal L (22BMC035)** bagged the **1st Prize** at the *14th Coimbatore District Wushu Championship* held on 8 June 2024.
- **Obuli Sri Aditya A (22BMC030)** also achieved the **1st Prize** in the *Other Style category* at the same championship on 8 June 2024.
- **Nandha Kumar V M (23BMC035)** participated in the *AGKF Karate Championship* from 7–9 June 2024 at Shree Shiv Chhatapati Sports Complex, Pune, where he secured both the **1st Prize and 3rd Prize**.
- **Aswath Kumar (21BMC011)** won the **3rd Prize** in the *University Tournament* held on 8 August 2024 at Anna University, Chennai.
- **Thaliravan V S (21BMC054)** secured the **1st Prize** at the *Anna University Sports Board event* held on 17 October 2024 at Sri Ramakrishna Engineering College, Coimbatore.
- **Abinanth N B (22BMC002)** won the **1st Prize** at the *Anna University Sports Board competition* conducted on 22 September 2024 at Anna University Regional Campus, Coimbatore.
- **Selvaeshwar M (22BMC043)** achieved the **3rd Prize** in the *1st Open State Yogasana Championship* held on 26 August 2024 at Kavitha Yogalaya & Fitness Centre.
- **Selvaeshwar M (22BMC043)** also won the **5th Prize** in the *18th Inter-State Yoga Competition* held on 25 August 2024 at United Institute of Technology, Coimbatore.
- **Pragadeeswaran T (21BMC031)** was a **Finalist** in the *Maker Fair Track of IEEE Yesist12* held on 7 August 2024 at Tunis Science City, Tunisia.
- **Praveen Kumar B (22BMC032)** was a **Finalist** in the *Janatics Automation Skill Talents* competition held on 18 August 2024 at Janatics Global Solution, Coimbatore.
- **Jairish R (21BMC016)** secured the **1st Prize (Innovation Prize)** at the *Monaco Energy Boat Challenge 2024* conducted on 1 July 2024 at Yacht Club de Monaco.
- **Yugabharathi M (21BMC055)** also won the **1st Prize (Innovation Prize)** at the *Monaco Energy Boat Challenge 2024* on 1 July 2024 at Yacht Club de Monaco.

- **Harishkumar A (21BMC014)** won the **2nd Prize** in the *Dumb-C event of Brain Strain'24* held on 14 September 2024 at Government College of Technology, Coimbatore.
- **Harishkumar A (21BMC014)** also secured the **1st Prize** in the *Quiz event of Brain Strain'24* conducted on the same day at Government College of Technology, Coimbatore.
- **Sri Darshan V (23BMC052)** won the **2nd Prize** at the *Ideathon organized by IEEE & Antennas and Propagation Society, KCT* on 11 September 2024 at Kumaraguru Institutions, Coimbatore.
- **Navin Raghav G S (23BMC038)** also secured the **2nd Prize** at the same *Ideathon* held on 11 September 2024 at Kumaraguru Institutions, Coimbatore.

Faculty Publications

- Raffik R., Prathapa Reddy, S. L., Maguluri, L. P., Prabhahar, M., Tisnado Puma, R. J. C., & Singh, D. P. (2024, August 2). *An efficient biometric identification technology for iris scanning.*
- Raffik R., Jayalingam, K., Muthuswamy, P., Muddisetty, H., & Oyeboode, O. J. (2024, August 2). *Analysis of changing trends in blended wing body aircraft design.*
- Raffik R., Rajagopal, N. K., Prabhahar, M., Kathirvelu, B., Subramanian, S., & Singh, P. (2024, August 2). *Automated vehicles and motion planning techniques.*
- Raffik R., Misra, P. K., Kolli, C. S., Reddy, V. V. K., Chandol, M. K., & Shukla, S. K. (2024, August 2). *Classification of defective product for smart factory through deep learning method.*
- Raffik R., Palaiyah, S., Maryna, C., Iryna, K., Olena, I., & Pant, B. (2024, August 2). *Cyber-physical protection system (CPPS) for improving key performance indicator (KPI) in a smart factory.*
- Raffik R., Tisnado Puma, J. C., Kulothungan, K., Kathirvelu, B., Subramanian, S., & Tripathi, V. (2024, August 2). *Identification and counting of vehicles in real time for expressway.*
- Raffik R., Misra, P. K., Devi, G. M., Prasad, U., Chakravarty, S., & Pant, B. (2024, August 2). *Machine learning for autonomous vehicles.*
- Raffik R., Mudisetty, H., Raju, D., Hernandez Vasquez, R. M., Karanam, S. A. K., & Patil, P. (2024, August 2). *Shape-morphing automobile structures – A review.*
- Raffik R., Farouq, K. M., Muddisetty, H., Sengar, K., Sendilvelan, S., & Pant, K. (2024, August 2). *Smart agriculture farming using drone automation technology.*
- Akila, K., Sabitha, B., Sivaguru, J., Naveen, C., & Parveen, A. S. (2024, July 25). Experimental analysis on FDM–3D printing process parameters optimization to enhance tensile strength with PLA material. In G. Raghavendra, B. B. V. L. Deepak, & M. Gupta (Eds.), *Recent advances in mechanical engineering* (Vol. 2).
- Raffik, R., Sabitha, B., Sivaguru, J., Naveen, C., & Parveen, A. S. (2024, July 25). Experimental analysis on FDM–3D printing process parameters optimization to enhance tensile strength with PLA material. In G. Raghavendra, B. B. V. L. Deepak, & M. Gupta (Eds.), *Recent advances in mechanical engineering* (Vol. 2).

- Sabitha, B., Raffik, R., Akila, K., Sivaguru, J., Naveen, C., & Parveen, A. S. (2024, July 25). Experimental analysis on FDM–3D printing process parameters optimization to enhance tensile strength with PLA material. In G. Raghavendra, B. B. V. L. Deepak, & M. Gupta (Eds.), *Recent advances in mechanical engineering* (Vol. 2).
- Sivaguru, J., Raffik, R., Akila, K., Sabitha, B., Naveen, C., & Parveen, A. S. (2024, July 25). Experimental analysis on FDM–3D printing process parameters optimization to enhance tensile strength with PLA material. In G. Raghavendra, B. B. V. L. Deepak, & M. Gupta (Eds.), *Recent advances in mechanical engineering* (Vol. 2).