

## FACULTY PROFILE

### Personal Information

Full Name: **Dr. A. ARIVAZHAGAN**

Designation: Assistant Professor (S.G.)

Official Email ID: arivazhagan.auto@kcgcollege.com

Date of Joining in KCG: 11.08.2022



### Educational Qualifications

Degree	Specialization	University / Institution	Year of Passing
<b>Ph.D.</b>	Vehicle Dynamics and Control System	Anna University / MIT Campus	2021
<b>M.E./M.Tech</b>	Automobile	Anna University / MIT Campus	2014
<b>B.E./B.Tech</b>	Mechanical	Anna University / Sri Sai Ram Engineering College	2007

### ACADEMIC PERFORMANCE

### Experience

Teaching Experience	Industry Experience	Research Experience
8 years 4 months	Nil	5 years
<b>Total Experience: 13 years 4 Months</b>		

### Previous Organization

Name of the Organization	Designation	Period		Experience	
		From	To	Years	Months
MIT Campus, Anna University	Research Scholar	Feb 2016	Jan 2021	5	-
Vels University	Assistant Professor	May 2014	Jan 2016	1	9

Vels University	Teaching Assistant	Jan 2011	May 2014	3	4
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## Courses Taught

Undergraduate Courses:

Automotive Transmission  
 Finite Element Analysis  
 Vehicle Dynamics  
 Mechanics of Machines  
 Automotive Pollution and Control  
 Electric and Hybrid Vehicles

Postgraduate Courses: Nil

## FDPs / Workshops Attended

*FDPs*

1. Two and Three Wheeler Vehicle Dynamics organized by Centre of Excellence in Advanced Automotive Research and SAEINDIA held on 19<sup>th</sup> December 2025 at IIT Madras Research Park, Chennai. (One Day – PDP)
2. Building Sustainable Smart Industries: Industry 4.0 in Manufacturing, Mobility and Automation, sponsored by The Institution of Engineers and Technology, organised by the Department of Automobile, Mechanical and Mechatronics Engineering, KCG College of Technology held from 07<sup>th</sup> to 11<sup>th</sup> July 2025. (Five Days - FDP)
3. Integration of Automotives and Smart Mechatronics System for Sustainable Mobility organized by Department of Automobile & Mechatronics Engineering from 31<sup>st</sup> January to 4<sup>th</sup> February 2024 at KCG College of Technology. (Five Days - FDP)
4. Application of Mathematics in Solving Engineering Problems organized by Internal Quality Assurance Cell & Department of Science and Humanities (Maths Division) on 3<sup>rd</sup> to 7<sup>th</sup> July 2023 at KCG College of Technology. (Five Days - FDP)
5. How Teachers Can Make a Difference organized by Teaching Learning Center, IIT Madras, held during 7<sup>th</sup> to 9<sup>th</sup> February 2023 at KCG College of Technology.
6. Vehicle Dynamics using Matlab organized by the Department of Automobile Engineering, Sri Venkateswara College of Engineering, Sriperumbudur Tk - 602117, India, from November 27 to December 01, 2018 (Five Days - FDP).

7. Fundamentals of Vibration – Measurement, Analysis and Control at St. Joseph's College of Engineering, sponsored by All India Council for Technical Education, Government of India, New Delhi from 30<sup>th</sup> Oct - 10<sup>th</sup> Nov 2017 (Ten Days - FDP).

### *WORKSHOPS*

1. Professional Development Workshop on Digital Creativity Skills as a part of Adobe Academic Essentials program at KCG College of Technology on 20th May 2023.
2. One Day Awareness Workshop on Intellectual Property Rights (IPR - 2019) conducted by Centre for Intellectual Property Rights (CIPR), Anna University, Chennai on 27.09.2019 at AC Tech Campus, Anna University, Chennai.
3. The two-day workshop on Vehicle Dynamics organized by the Department of Automobile Engineering at Bannari Amman Institute of Technology, Sathyamangalam during 5<sup>th</sup> and 6<sup>th</sup> January 2017.
4. Routledge Editorial Workshop 2016 organized by Taylor & Francis India at Anna University, Chennai on August 3<sup>rd</sup>, 2016.
5. UGC sponsored one day workshop on Recent Trends in Vehicle Technology conducted by the Department of Automobile Engineering, MIT Campus, Anna University, Chennai on 28<sup>th</sup> February 2015.
6. Two-week ISTE workshop on Control Systems conducted by IIT Kharagpur from 2<sup>nd</sup> to 12<sup>th</sup> December 2014.
7. Two-week ISTE workshop on Fluid Mechanics conducted by IIT Kharagpur from 20<sup>th</sup> to 30<sup>th</sup> May 2014.
8. Two-week ISTE workshop on Engineering Mechanics conducted by IIT Bombay from 26<sup>th</sup> November to 06<sup>th</sup> December 2013.
9. Two-week ISTE workshop on Engineering Thermodynamics conducted by IIT Bombay from 11<sup>th</sup> to 21<sup>st</sup> December 2012.
10. Two-day national level seminar cum workshop on Emerging Trends in Alternate Fuels and Automotive Electronics conducted on 7<sup>th</sup> and 8<sup>th</sup> September 2012 at Karpaga Vinayaga College of Engineering and Technology.
11. International Workshop on Research held on 9<sup>th</sup> August 2012 organized by the Department of Mechanical Engineering, School of Engineering, Vels University, Chennai- 600 117.

### **FDPs / Workshops Organized**

#### *GUEST LECTURE*

1. Organized guest lecture on An Integrated Approach to Vehicle Chassis & Powertrain Systems conducted by the Department of Automobile Engineering held on 27<sup>th</sup> September 2025 at KCG College of Technology, Chennai.

### SEMINAR

1. Organized seminar on Brake Systems in Automotive Engineering: Fundamentals to Future Trends conducted by the Department of Automobile Engineering held on 26<sup>th</sup> September 2025 at KCG College of Technology, Chennai.
2. Organized seminar on Vehicle Dynamics - an Overview conducted by the Department of Automobile Engineering held on 07<sup>th</sup> January 2023 at KCG College of Technology, Chennai.

### WORKSHOP

1. Organized Bumper to Bumper workshop conducted by the Department of Automobile Engineering held on 03<sup>rd</sup> February 2024 at KCG College of Technology, Chennai.
2. Organized Transformation in Automotive Industry - Parallel workshop Session - (ICIATI) 2023 conducted by the Department of Automobile Engineering held on 24<sup>th</sup> June 2023, at KCG College of Technology, Chennai.
3. Organized Application of Matlab in Automotive Dynamics workshop conducted by the Department of Automobile Engineering held on 13<sup>th</sup> March 2023 at KCG College of Technology, Chennai.
4. Organized Bumper to Bumper workshop conducted by the Department of Automobile Engineering held on 07<sup>th</sup> January 2023 at KCG College of Technology, Chennai.

### SCIENTIFIC CONTRIBUTION

#### Online Profiles

Google Scholar: Arivazhagan Anandan

ORCID: 0000-0003-0385-3300

Scopus ID: 57204934531

Total Number of Research paper	Citations	h-index	i10-index
11	33	2	1

## Research Publications

International Journals:

1. **Arivazhagan A** & Kandavel, A, “Experimental Investigation on Genetic Algorithm Optimized Proportional Integral Derivative Based Active Suspension System”, *SAE Technical Paper* 2025-01-0014, 2025, doi:10.4271/2025-01-0014, **IF – 0.51**.
2. **Arivazhagan Anandan** & Arunachalam Kandavel, “Combined Input-Output Finite time Stability with  $H^\infty$  Static Output-feedback Control Approach for Active Suspension”, *IETE Journal of Research*, 2023, vol. 69, no. 8, pp.5473-5483, **IF – 1.294**.
3. **Arivazhagan Anandan** & Arunachalam Kandavel, “Investigation and performance comparison of ride comfort on the created human vehicle road integrated model adopting genetic algorithm optimized proportional integral derivative control technique”, *Proceedings of the Institution of Mechanical Engineers, Part K: Journal of Multi-body Dynamics*, 2020, vol.234, no.2, pp. 288-305, **IF – 1.533**.
4. **Arivazhagan Anandan** & Arunachalam, K, “Enhancement of Occupant Ride Comfort by GA Optimized PID Control Active Suspension System”, *SAE Technical Paper* 2020-01-1532, doi:10.4271/2020-01-1532, 2020, **IF – 0.51**.
5. **Arivazhagan Anandan** & Arunachalam, K, “Behavioral Study on Passenger and Driver Dynamics Utilizing 14-DOF Half Car Active Suspension System”, *SAE Technical Paper* 2020-01-1006, doi:10.4271/2020-01-1006, 2020, **IF – 0.51**.
6. **Arivazhagan Anandan** & Arunachalam, K, “Study and Analysis of the Behavior of a Seated Human Body in a Vehicle by the Influence of an Active Suspension System”, *SAE Technical Paper* 2019-01-0403, doi:10.4271/2019-01-0403, 2019, **IF – 0.51**.
7. **Arivazhagan Anandan**, Arunachalam Kandavel, and Arockia Suthan Soosairaj, “Comparison of quarter car suspension model using two different controllers”, *Lecture Notes in Mechanical Engineering*, Springer, Singapore, 2019.

National Journals:

1. **A. Arivazhagan**, K. Arunachalam, R. Varalakshmi & B. Vasanthan, “ $H^\infty$  Static output-Feedback Control with Variable Substitution Scheme for Non-stationary Running Active Suspension Vehicle”, *Int. J. Vehicle Structures & Systems*, 2023, vol. 15, no. 6, 762-768, **IF – 0.51**.

2. **A. Arivazhagan**, K. Vijay, A. Lokesh, S.S. Kumar, B. Sebastiraj, V. Hariram & V. Motilal, "Performance Evaluation of Passive Suspension System by Varying Damping Coefficient", *Int. J. Vehicle Structures & Systems*, 2023, vol. 15, no. 6, 839-842, **IF – 0.51**.
3. Manojkumar, Ritheeshwaran, Vignesh, B. Sebastiraj and **A. Arivazhagan**, "Design and Development of Power Generation using Vehicle Suspension", *Int. J. Vehicle Structures & Systems*, 2023, vol. 15, no. 7, 973-977, **IF – 0.51**.
4. Vijayraj S, **A Arivazhagan**, G Prakash, and G Prabhu "Optimization of Machining Parameters of AL-SIC Nano Composites Using DOE", *International Journal of Applied Engineering Research*, Vol. 10, no. 7: 2015. **IF – 0.51**.

Conferences:

1. Paper presented under the title of "Robust Controller for 3 Degree of Freedom Active Suspension System" in Quantum Horizon 2025 organized by Hindustan University and KCG College of Technology, held on 18<sup>th</sup> December – 19<sup>th</sup> December, 2025 at KCG College of Technology, Chennai.
2. Paper presented under the title of "Study and Analysis of the Behavior of a Seated Human Body in a Vehicle by the Influence of an Active Suspension System" in WCX SAE World Congress Experience 2019 organized by SAE International, held on from April 9 – 11, 2019 at Detroit, MI, USA.
3. Paper presented under the title of "Influence of vehicle speed and suspension damping on human body in passenger car", in FISITA 2018 World Automotive Congress, held at Chennai Trade Centre from October 2 – 5, 2018.
4. Paper presented under the title of "Comparison of quarter car suspension model using two different controllers", in the IDAD - 2018 conducted from 22 – 24 February 2018 at Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology, Chennai.
5. Paper presented under the title of "Study and Comparison of Quarter Car Suspension Model" in the International Conference on Civil, Mechanical, Chemical Engineering & Technologies – 2018 (ICCMCT - 2018) organized by SVS College of Engineering, held on 23 & 24, February 2018 at Coimbatore.
6. Paper presented under the title of "PID Controller for 3-DOF Quarter Car Active Suspension Model" in the International Conference on Civil, Mechanical, Chemical Engineering & Technologies – 2018 (ICCMCT – 2018) organized by SVS College of Engineering, held on 23 & 24, February 2018 at Coimbatore.
7. Paper presented under the title of "Development and testing of Vehicle Speed Controller by using Image Processing for Hybrid Vehicle Safety" in the International Conference on Computational Intelligence & Advanced Manufacturing Research – ICCIAMR 2014, organized by Vels University, Chennai on 2<sup>nd</sup> and 3<sup>rd</sup> May 2014.



8. Paper presented under the title of “ $H_{\infty}$  Static output-Feedback Control with Variable Substitution Scheme for Non-stationary Running Active Suspension Vehicle” in National Conference on Innovation Recent Trends in Automotive Technologies (NCIRAT'23) organized by Department of Automobile Eng., MIT Campus, Anna University, held on 23 & 24, March 2023 at Chennai.
9. Paper presented under the title of “Mathematical Modelling and Simulation of Active Suspension System Using PID Controller” in National Conference on Advancement's in Mechanical Engineering – 2019 (NCAME'19) organized by M Kumarasamy College of Engineering held on 15<sup>th</sup> March 2019 at Karur.
10. Paper presented under the title of “Optimization of Machining Parameters of AL-SIC Nano Composites Using DOE”, in the National Conference Frontiers in Mechanical Automobile Civil and Electrical Sciences – FMACE 2015 organized by Tamil Nadu College of Engineering held on 15<sup>th</sup> May 2015 at Coimbatore.

### **Research Guidance**

Details of Ph.D. Scholars: Nil

No. PG Projects: Nil

No. UG Projects: 5

### **Books / Book Chapters**

### **Funded Projects / Consultancy**

### **Patents / IPR**

### **Professional Memberships**

### **Awards and Recognitions**

1. Received an amount of Rs 140010/- (Full Air Fare Only) from CSIR Travel grant during February 2019 to participate in the WCX SAE World Congress Experience - 2019 held in Detroit, Michigan, USA.
2. Mentored the winning team, KINGPIN, at the Smart India Hackathon 2025 (Software Edition), conducted by the Ministry of Education, Government of India, and held on 8th–9th December 2025 at the Nodal Centre, St. Joseph's College of Engineering.

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### **Administrative / Academic Responsibilities**

1. ACO
2. Exam Cell Coordinator
3. IQAC Coordinator
4. Auto Electrical lab In-charge
5. Faculty Activities In-charge
6. Alumni Coordinator
7. Project Coordinator
8. Department Information System
9. NBA Coordinator
10. QS Criteria In charge – Diversity and Accessibility
11. Course Material Audit Committee Member