

## FACULTY PROFILE

### Personal Information

Full Name: Mr.R.Balamurugan

Designation: Assistant Professor

Official Email ID: [balamurugan.auto@kcgcollege.com](mailto:balamurugan.auto@kcgcollege.com)



Date of Joining in KCG: 01.06.2023

### Educational Qualifications

Degree	Specialization	University / Institution	Year of Passing
Ph.D.	Material Energy absorption for EV	Anna University, Chennai	Pursuing
M.E./M.Tech	Engineering Design	Anna University / Government College of Technology, Coimbatore	2017
B.E./B.Tech	Automobile Engineering	Anna University / Tamilnadu College of Engineering	2012

## ACADEMIC PERFORMANCE

### Experience

Teaching Experience	Industry Experience	Research Experience
08	01	-
<b>Total Experience: 09</b>		

### Previous Organization

Name of the Organization	Designation	Period		Experience	
		From	To	Years	Months
Bannari Amman Institute of Technology	Assistant professor	June 2017	May 2023	6	0
Park AMC Polytechnic college	Lecturer	May 2013	May 2015	2	0

L.G.Balakrishnan& Bros Pvt Ltd	Graduate Engineer	June 2012	May 2013	1	0
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**FDPs / Workshops Attended**

S.No	Type	Name of the Program	From Date	To Date	Place	Sponsored	Title
1	FDP	FUSION 360 - UNLOCK YOUR DESIGN POTENTIAL	08/11/2023	10/11/2023	KCG COLLEGE OF TECHNOLOGY	ICTACT	CAM USING FUSION 360
2	FDP	EMERGING TECHNOLOGIES & REAL-WORLD APPLICATIONS	22/11/2023	24/11/2023	IIT CHENNAI	IITM PALS	EMERGING TECHNOLOGIES & REAL-WORLD APPLICATIONS
3	FDP	PRODUCT DESIGN AND DEVELOPMENT	10/07/2023	10/08/2023	NPTEL	AICTE SPONSORED	PRODUCT DESIGN AND DEVELOPMENT
4	FDP	INTEGRATION OF AUTOMOTIVES AND SMART MECHATRONICS FOR SUSTAINABLE MOBILITY	31/01/2024	04/02/2024	KCG COLLEGE OF TECHNOLOGY	KCG	INTEGRATION OF AUTOMOTIVES AND SMART MECHATRONICS FOR SUSTAINABLE MOBILITY
5	FDP	ENGINEERING SUSTAINABLE MOBILITY	09/04/2024	11/04/2024	IIT CHENNAI	PALS	ENGINEERING SUSTAINABLE MOBILITY

**Online Profiles**

Google Scholar: <https://scholar.google.com/citations?user=PbDPFIEAAAJ&hl=en&oi=sra>

ORCID: <https://orcid.org/0000-0002-7105-2217>

Scopus ID: <https://www.scopus.com/authid/detail.uri?authorId=57211248602>

Total Number of Research paper	Citations	h-index	i10-index
<b>16</b>	<b>320</b>	<b>10</b>	<b>10</b>

### Research Publications

Sl. No.	Title of the Paper	Authors	Name of the Journal	Year, Volume, Issue
1.	Design of Shock absorber for car front Bumper	Mr.Balamurugan R, Dr. Sekar V,	International Journal of science Technology and engineering.	2017, Vol 3, Issue 9.
2.	Design and crash analysis of scooter front guard	Balamurugan R, Muhammad Abdul sukkoor, S tamil selvan, Madan kumar S,	International Journal of Creative Research thoughts	2018, Vol 6, Issue 1
3.	Crashworthiness of automotive bumper using bamboo fiber reinforced epoxy composite	Balamurugan R, Jawahar K, Sankar Gandhi M,	International Journal of creative research thoughts,	2018, Vol 7, Issue no 1
4.	Optimization of Micro Electrochemical Machining of Inconel 625 using Taguchi based Grey Relational Analysis	Madhan Kumar S, Balamurugan R, Harikrishnan M	International Journal of Applied Engineering Research.	2018, Vol 7, Issue No.13

5.	Optimization of process parameters on surface roughness for micro electrochemical machining of Aluminium matrix composite	MadhanKumar S, Rajesh S, Balamurugan R,	International Journal of Scientific and research Engineering,	2018, Vol 7, Issue No.2
6.	Design and modelling of disaster relief vehicle using rocker bogie mechanism	S. Madhankumar, M. Jishnu, J. Karthick Prithiv, S. Gowrishankar, S. Rajesh R. Balamurugan	International Journal of Innovative Technology and Exploring Engineering (IJITEE)	ISSN: 2278-3075, Volume-8 Issue-6, April 2019
7.	Experimental and numerical investigation of thin cylindrical shell subjected to axial compression loading	Sudir Kumar V, Balamurugan R, Raja T, Dhayaneethi.S	AIP conference proceedings,	2019
8.	Investigation on Design and Analysis of Passenger Car Body Crash-Worthiness in Frontal Impact Using Radioss	Balamurugan R, Sudhir Kumar Vijayakumar, and Raja T	SAE Technical Paper.	Sep 2020
9.	Fabrication of Al6063 alloy, silicon carbide and boron glass powder metal matrix composites in stir casting process and analysis the impact of process variables on mechanical properties	MadhanKumar S, Balamurugan R, Rajesh S, K.M. Senthilkumar	Materials Today Proceedings	Volume 42, Part 2, 2021, Pages 529-535
10.	Design and Implementation of Secondary Positioner for	Arunkumar P M, Gobikrishnan, Udhaya kumar, Balamurugan.	IEEE Indian Conference on Antennas and	December 2021

	improving the OEE of Robotic Welding System	R, Akshey. P.B; Gurubaran S K M	Propagation (InCAP)	
11.	Experimental investigation on reliable and accurate prediction of buckling analysis of thin cylindrical shells with geometric imperfections.	V. Sudhir Kumar, R. Balamurugan, T. Raja, B. Saravanan	Materials Today Proceedings	Volume 45, Part 2, 2021, Pages 841-851
12.	Electrochemical machining of aluminium 7075 alloy, silicon carbide, and fly ash composites: An experimental investigation of the effects of variables on material removal rate	S. Rajesh, S. R. Balamurugan, U. Gobikrishnan, Madhankumar.	Materials Today Proceedings	Volume 62, Part 2, 2022, Pages 863-867
13.	Design and Investigation of Automatic Trash Collecting Machine for Industry	Balamurugan R, V Sudhir Kumar, Thejasree Pasupuleti, Sadhasivam Deepan Kumar	SAE International Technical paper	SAE Technical Paper 2023-28-0179
14.	Design and Analysis of Retrofit for Root Crop Harvester	Sadhasivam Deepan Kumar, Boopathi M, S Sridhar Raj, Balamurugan R, Iniya Mounika S	SAE International Technical paper	SAE Technical Paper 2023-28-0052
15.	Design, Modelling and Simulation of Adaptable Marine and Terrestrial Cleaner	V Sudhir Kumar, Balamurugan R, Thejasree Pasupuleti, Manikandan Natarajan	SAE International Technical paper	SAE Technical Paper 2023-28-0165

16.	Application of Taguchi Based ANFIS Approach in Wire Electrical Discharge Machining of Haste Alloy C276 for Automobile Applications	Thejasree Pasupuleti, Manikandan Natarajan, Balamurugan R, Jothi Kiruthika	SAE International Technical paper	SAE Technical Paper 2023-28-0167
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## Conferences

1. Project Title: Experimental And Numerical Investigation of Thin Cylindrical Shell Subjected to Axial Compression Loading.

Paper presented: International conference on Materials, Manufacturing and Machining.

Project Title: Comparative Study of Inconel 625 & 718 Alloys from Material Removal Rate in Electrochemical Machining.

Paper presented: National Conference on Energy, Ecology and Environment.

2. Project Title: Study on Interference effect on internal cooling air flow on car bonnet scoop.

Paper presented: International conference on Technologies for green mobility 2020.

3. Project Title: Topology optimization of aluminium alloy wheels for SUV

Paper presented: 4th International conference on Advancements in Aeromechanical Materials for Manufacturing.

4. Project Title: Design and analysis on interference effects on internal cooling air flow on car bonnet scoop

Paper presented: 3rd International conference on Innovative product design and intelligent manufacturing systems.

5. Project Title: Design and analysis of vehicle car body rollover test.

Paper presented: 5th International conference on Technologies for Green Mobility – 2021.

6. Project Title: Study on the vehicle weight distribution on different loading conditions using IPG Carmaker.

Paper presented: 4th International conference on recent innovations in research and development.

**7. Project Title:** Design and Investigation of Automatic Trash Collecting Machine for Industry

Paper presented: International Conference on Advances in Design, Materials, Manufacturing and Surface Engineering for Mobility.

**8. Project Title:** Grey relational optimization of the microelectrochemical drilling response variables material extraction rate, overcut and surface roughness of Inconel 718 alloy.

Paper presented: 3rd International conference on Materials science and Engineering.

### Research Guidance

No. PG Projects: 18

No. UG Projects: Nil

### Patents / IPR

S.no	Patent title	Year of published
1	Apparatus for fish cutting and slicing	2020
2	Intelligent artificial intelligence and IOT powered efficiency energy monitoring architecture for the smart grid system	2021
3	Machine learning based patients' illness prediction and automatic doctor appointment alert	2022
4	A Supervision technique and machine for determining a gear-stick spot, and a vehicle control system	2022
5	Front and rear collision avoidance system with emergency braking by shifting polarity for electric two-wheeler	2023

### Professional Memberships

- Member of Institution of Engineering and Technology (IET) holding the position of YP Chairman in Chennai Local Network.

- Member of Society of Automobile Engineering (SAE) holding the position of faculty advisor in Mahindra World City (MWC) Devision.
- Member of Indian Society for Technical Education (MISTE).

### **Awards and Recognitions**

Mr. Balamurugan.R was a YP Chairman for national conference IET On campus chapter organized by JEPPIAAR Engineering College on 07 Nov 2023.

Mr. Balamurugan.R was a YP Chairman for national conference IET On campus chapter organized by Mahindra University, Hyderabad on 21 Aug 2023