



# TAGORE ENGINEERING COLLEGE

(A Member of Tagore Group of Institutions Chennai)

Approved by AICTE, New Delhi | Affiliated to Anna University, Chennai

ACCREDITED BY IQAC-NAAC WITH 'A' GRADE

## FACULTY PROFILE

PERSONAL DETAILS	
Name & Qualification	<b>Dr.V.K.SHANMUGANATHAN</b> <b>M.E., Ph.D</b>
Designation	PROFESSOR
Department	AERONAUTICAL ENGINEERING
Total Teaching Experience	18 Years
Total Research Experience	10
Total Industry Experience	2
Area of Specialization	Aerodynamics, LCF Failure Analysis and Thermal Barrier Coating, Nano-Composites
AICTE Faculty ID	1-7403127828
Email ID	shankris21@gmail.com



EDUCATIONAL DETAILS			
Degree	Branch/ Specialization	University	Year
A.M.Ae.S.I & A.M.I.E	Aeronautical & Mechanical	The Aeronautical Society of India & The Institution of Engineers (India)	2001 & 2015
M.E	Industrial Engineering	Anna University	2004
Ph.D	Aeronautical-Mechanical	Anna University	2014

### RESEARCH / PUBLICATION DETAILS

#### Publications in Journal

V.K.Shanmuganathan, et.al, "Condition Monitoring Maintenance of Aero-Engines through LUMS-A Method for the Implementation of Lean Tools", MEASUREMENT -Elsevier Journal-, (ISSN:0263-2241), Vol.73, pp. 226-230, 2015. (Annexure-I, Impact Factor: 2.38) (SCI INDEXED)

2. N.Gayathri, Dr.Ramesh Bapu, V.K.Shanmuganathan,, “Chemical Synthesis and Characterization of THORIA incorporated YTTRIA CERIA-Stabilized ZIRCONIA NANO particles for High Temperature Applications, Digest Journal of Nanomaterials and Biostructures (ISSN:18423582),Vol.12,pp. 973-979, 2017.(Annexure-I,Impact Factor-0.61) (SCI INDEXED)
3. V. Antony Vincent, C.Kailasanathan, V.K.Shanmuganathan, et. al, “Strength characterization of caryota urens fibre and aluminium 2024-T3 foil multi-stacking sequenced SiC-toughened epoxy structural composite”, Biomass Conversion and Biorefinery-Journal, 2020. (ISSN:2190-6823), (Annexure-I, Scopus Indexed, Impact Factor: 4.987) (SCI INDEXED)
4. KarthigaiRajan, P.K.Nagarajan, RavirajaMalarvannan, B.R.RameshBapu, V.K.Shanmuganathan, et. al, “Effect of Silane-Treated Rice Husk Derived Biosilica on Visco-Elastic, Thermal Conductivity and Hydrophobicity Behavior of Epoxy Biocomposite Coating for Air-Duct Application”, Silicon-Journal, Vol.13, 4421-4430,2021. (ISSN:1876-9918), (Annexure-I, Scopus Indexed, Impact Factor: 2.67) (SCI INDEXED)
5. A.V.Mayakkannan, Aravind Chakrapani, Sri Hari, V.K.Shanmuganathan, et. al, “A Split-Input Driver- Enabled High-Speed and Energy-Efficient Level Shifter Using Hybrid Pull-Up Network ”, Circuits, Systems and Signal Processing-Journal, Vol.41, 2308-2321,2022. (ISSN:1531-5878), (Annexure-I, Scopus Indexed, Impact Factor: 2.225)
6. N. Arivazhagan, K. Somasundaram, D. Vijendra Babu, SriHari, V.K.Shanmuganathan, et. al, “Cloud- Internet of Health Things (IOHT) Task Scheduling Using Hybrid Moth Flame Optimization with Deep Neural Network Algorithm for E Healthcare Systems”, Scientific Programming-Journal, 2022. (ISSN:1875-919X), (Annexure-I, Scopus Indexed, Impact Factor: 2.14) (SCI INDEXED)
7. B Gobinathan, MA Mukunthan, K Somasundaram, SriHari, V.K.Shanmuganathan, et. al, “A Novel Method to Solve Real Time Security Issues in Software Industry Using Advanced Cryptographic Techniques”, Scientific Programming-Journal, 2021. (ISSN:1875-919X), (Annexure-I, Scopus Indexed, Impact Factor: 2.14) (SCI INDEXED)
8. G. Sasikala, V. Mahalakshmi, K. Srihari, V.K.Shanmuganathan, et. al, “Semiconductor Polymer Carbon Composite Coated Fabric for Warm Beds in Hospital”, Adsorption Science & Technology-Journal, 2022. (ISSN:0263-6174), (Annexure-I, Scopus Indexed, Impact Factor: 4.232) (SCI INDEXED)
9. Dr Aruna, Srihari K Dr Surendran, Somasundaram K, V.K.Shanmuganathan, “An Enhancement On Convolutional Artificial Intelligent Based Diagnosis For Skin Disease Using Nanotechnology Sensors” Computational Intelligence and Neuroscience-Journal- 2022(ISSN:1687- 5273), (Annexure-I, Scopus Indexed, Impact Factor: 3.63) (SCI INDEXED)

10. AV Mayakannan, C Arvind, P Dhinakar, V.K Shanmuganathan, B Sathyasri, K Srihari, G Sasikala, "Neural network-based regression assisted PAPR reduction method for OFDM systems", *Sadhana-Journal-2022*, Vol.47, (ISSN: 0973-7677), (Annexure-I, Scopus Indexed, Impact Factor: 1.48) (SCI INDEXED)
11. N.Gayathri, V.K.Shanmuganathan, et.al, "Mechanical Properties Investigation on Natural Fiber Reinforced Epoxy Polymer Composite", *Materials Today: Proceedings*, Vol.72, pp.2574-2580, (ISSN: 2227-524X), 2018. (Scopus Indexed)
12. N.Gayathri, V.K.Shanmuganathan, et.al, "Investigations on Mechanical Behavior of Al6061-TiO<sub>2</sub>-SiC Produced by Stir Casting", *International Journal of Engineering & Technology (UAE)*, Vol.7 (3.34), pp.369-371, (ISSN: 2227-524X), 2018. (Scopus Indexed)
13. N.Gayathri, V.K.Shanmuganathan, et.al, "Productivity Improvement and Cost Reduction in Hydraulic Cylinders", *International Journal of Engineering & Technology (UAE)*, Vol.7 (3.34), pp.382-384. (ISSN: 2227-524X), 2015. (Scopus Indexed)
14. V.K.Shanmuganathan, et.al, "Comparative study on Performance of Linear and Annular Aero-Spike Nozzles", *Australian Journal of Basic and Applied Sciences* ISSN: 1991-8178, Vol.9(11), pp. 883-892, 2015. (Scopus Indexed)
15. Seenu Balaji, Gayathri.N, V.K.Shanmuganathan, "Cost Reduction of Sheet Metal Parts with Feasible Raw Material Specifications" *International Journal of Applied Engineering Research*, ISSN:0973-4562, Vol. 10, 328-332, 2015, (Scopus Indexed upto 2018).
16. Gayathri.N, V.K.Shanmuganathan, "Creep Analysis of a Unit Flame Tube used in Turbo Fan Engine" *International Journal of Applied Engineering Research*, ISSN: 0973-4562, Vol. 10, 272-276, 2015, (Scopus Indexed upto 2018)
17. V.K.Shanmuganathan, Gayathri.N "Re-evaluation of Reliability and Mean Residual Life of Aero-Engine -A New Approach" *International Journal of Applied Engineering Research*, ISSN:0973-4562, Vol. 10, 11119-11124, 2015 (Scopus Indexed upto 2018)
18. Gayathri.N, B.R.Ramesh Bapu, V.K.Shanmuganathan, "Surface Analysis of Ceramic Coated Turbine blade" *International Journal of Applied Engineering Research*, ISSN: 0973-4562, Vol. 10, 11227-11231, 2015, (Scopus Indexed upto 2018).
19. V.K.Shanmuganathan, et. al, "Aero-Engine Maintenance Cost Optimization by RCM", *International Journal of Life Science*, 10(1):2891-2896, 2013. (ISSN: 1097-8135), (Scopus Indexed upto 2016).
20. Gayathri.N, V.K.Shanmuganathan, "Energy Saving Method for Operating CNC Machine Door" *International Journal of Applied Mechanics & Materials*, Vol. 867, 272-279, 2017,

21. V.K.Shanmuganathan, B.Madhankumar, “Nano Transparent Unmanned Helicopter for Indoor Surveying”, IOSRD International Journal of Engineering, Volume-1, Issue 2, December 2014, pgs 104-107.ISSN 2394-238X.
22. Gayathri.N, V.K.Shanmuganathan, “Effects of Nano Particles on the Microstructure of LM25 (A356) Alloy Manufactured by Squeeze Casting” International Journal of Applied Mechanics & Materials, Vol. 867, 64-70, 2017.

### Conference Proceedings

1. “Classical Lean Management for Aviation Industry”, was presented in International Conference jointly conducted by DRDO, ISI and Quality Council of India, on 7<sup>th</sup> & 8<sup>th</sup> February 2011.
2. “Implementation of Six Sigma in Aviation Industry”, was presented in International Conference jointly conducted by DRDO, ISI and Quality Council of India, on 7<sup>th</sup> & 8<sup>th</sup> February 2011.
3. “Leansy Tools for Aviation Industry” was presented in a National Conference, at Vellammal Engineering College, Chennai, on 23<sup>rd</sup> March 2011.
4. “Quality Assurance system for achieving Global Quality”, was presented in National Conference on Challenges in Achieving Global Quality – CAGQ 2004, at Thiagarajar College Engineering, Madurai, on 24<sup>th</sup> & 25<sup>th</sup> May 2004, and won Second Best Paper award of the conference.

### Books / Chapters Published

NIL

### Fund Received

**An R&D Aid of Rs.90,000/- has been sanctioned by The Institution of Engineers India for a project work “Studies on Online Monitoring of Cumulative Fatigue Damage of High Speed Rotors of Power Generation Turbines”.**

### Patent Applied / Published/Granted

- **Patent has been published on Design and Fabrication of Emergency Stretcher using Spring-Linkage Suspension System {Application No: 202141029267 A}.**
- **Patent has been published on “Hybrid Bio-Gas Plant” {Application No: 201841035272}.**

CITATIONS	171
-----------	-----

H-INDEX	06
---------	----

### RESEARCH GUIDANCE DETAILS

Sl.No	University	Supervisor ID / Reference
1	Anna University, Chennai	No:2720070

2	Number of UG Scholars Guided	<b>116</b>
3	Number of PGScholars Guided	<b>02</b>
4	Number of Ph.D. Scholars Guided	<b>NIL</b>
5	Number of Ph.D. Scholars Pursuing	<b>NIL</b>

**PROFESSIONAL SOCIETY MEMBERSHIP DETAILS**

<b>Sl.No</b>	<b>Professional Society Name</b>	<b>Member ID</b>
1	Aeronautical Society of India	<b>G10879</b>
2	The Institution of Engineers (India) Kolkata	<b>AM137531</b>