



**Mr.S.D.Kumar M.Tech.,(Ph D)**

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**Mr.S.D.Kumar** Working as an Assistant Professor in the Department of Mechanical Engg. at SRMIST,Ramapuram. He Graduated in Mechanical Engineering at Vellore Engineering College (Affiliated to Madras University,Chennai,Tamilnadu)Vellore , India. He secured Master of Engineering in Computer Aided Design University, Chennai, India. He is Pursuing Ph.D. in the field of Friction Stir welding at Vels Institute of Science,Technolgy and advanced studies, Chennai, India. He is in teaching profession for more than 25 years. He has presented number of papers in National and International Journals, Conference and Symposiums.

**Areas of Research:**

Design and Manufacturing.

**Selected Publications:**

**Web of Science/SCI**

1. S.D.KUMAR, Dr.R.PUGAZHENTHI,OPTIMIZATION OF PROCESS PARAMETERS OF FRICTION STIR WELDING OF ALUMINUM ALLOYS,JOURNAL OF AERONAUTICAL MATERIALS,Vol-42,2022,Issue 05,2022,PP159-168
2. S.D.KUMAR, R.PUGAZHENTHI,MULTI OBJECTIVE OPTIMIZATION OF DISSIMILAR ALUMINIUM ALLOY FRICTION STIR WELDING CONTROL VARIABLES,JOURNAL OF NORTHEASTERN UNIVERSITY,Vol25,issue4,2022,PP2656-2671
3. Kumar, SD; Pugazhenth, R; Danial, S Ajith Arul; Swaminathan, G Optimization of Dissimilar aluminum alloy by Friction stir welding Process Control variables with Multiple Objectives,Journal of Physics: Conference Series,Vol-20402021/10/1,IOP Publishing
4. Uthirapathy, C; Swaminathan, G; Mathivanan, A; Kumar, SD; Manikandan, G; Madhesh, D ,Experimental investigation of solar steam generator using nanocoating,Materials Today:

5. Kanna, SK Rajesh; Udaiyakumar, KC; Kumar, S Dinesh; Lingaraj, N,3D heterogeneous bin packing framework for multi-constrained problems using hybrid genetic approach,IOP Conference Series: Materials Science and Engineering,Vol-402,Issue1,PP012203,2018/8/1,IOP Publishing
6. Swaminathan, G; Kumar, SD; Mathivanan, A; Udaiyakumar, KC; Vijayaragavan, E,Design and development of multi drop auto-walk,IOP Conference Series: Materials Science and Engineering,Vol-402,Issue-01,PP012153,2018/8/1,IOP Publishing
7. S.D.KUMAR,Raja Bala Yoga Naveen, T.Rahul, B.Surrendran, PShanmukhaAravind, "ELECTRICALLY DRIVEN VEHICLE WITH AUTOMATIC AND MANUAL CHARGING,International Journal of Innovative Technology and Exploring Engineering(IJITEE). ISSN:2278-3075,Volume-8 Issue-7, May-2019
8. S.D.KUMAR,Utkarsh Namdeo,Ayushmaan Samdhiya,PranjulMishra,K.Dinesh Krishnan "HYPER LOOP TRANSPORTATION SYSTEM ,International Journal of Innovative Technology and Exploring Engineering(IJITEE). ISSN:2278-3075,Volume-8 Issue-7, May-2019
9. G.Swaminathan,S.D.Kumar,De.A.Mathivanan,Dr.K.C.Udaiyakumar, E.Vijayaragavan, "DESIGN AND DEVELOPMENT OF MULTI-GROP AUTO WALK,2<sup>nd</sup> International conference on Advances in Mechanical Engineering (ICAME-2018) IOP publishing,IOP conference Series: Materials Science and engineering 402(2018)012153. DOI:10.1088/1757-899X/402/1/012153.
10. Y.Phanindra,S.D.Kumar,S.Pughzhendhi, "Experimental Investigation On Al<sub>2</sub>O &Cu Hybrid Nanofluid Using Concentric Tube Heat Exchanger, Science Direct ,Materials today 2214-7853,2017- Elsevier.
11. D.K. Mohan kumar, A. Mathivanan, G.Manikandan, S.D. Kumar, "Fabrication And Testing Of 13 Layer Glass Fiber Laminates For Application In Electrical Junction Boxes And Enclosures",Pak. J. Biotechnol. Vol. 15 (Special Issue ICROME 17) Pp. 61-65 (2018) ,www.pjbt.org PISSN: 1812-1837, EISSN 2312-7791
12. G. Swaminathan, A. Mathivanan, S.D. Kumar, C. Uthirapathy," "OPTIMIZATION OF PROCESS PARAMETERS FOR GAS METAL ARC WELDING OF DISSIMILAR AA7075 AND AA6063 ALUMINIUM ALLOYS USING ARTIFICIAL NEURAL NETWORKS (ANN)", Pak. J. Biotechnol. Vol. 15 (Special Issue ICROME 17) Pp. 61-65 (2018) ,www.pjbt.org PISSN: 1812-1837, EISSN 2312-7791
13. S.D.KUMAR,GMANIKANDAN&C.UTHIRAPATHI, " DESIGN OF HYBRID VEHICLE USING WIND ENERGY", International journal of mechanical engineering and production engineering ,Research and Development (IJMPERD), ISSN(P): 22496890; ISSN(E):2249-8001 Special issue, Jun 2018,145-151.
14. S.D.KUMAR & JAGANATHAN.L, "LOAD SENSING SELF ADJUSTER TO COMPENSATE WEAR IN BRAKES", International journal of mechanical engineering and production engineering ,Research and Development (IJMPERD), ISSN(P): 22496890; ISSN(E):2249-8001 Special issue, Jun 2018,157-168.
15. S.D.Kumar, presented a paper in the national conference on Recent Trends and developments in mechanical engineering (RTDME – 2018) , paper titled " Experimental study on

Exhasut Gas Analyser” on 1<sup>st</sup> & 2<sup>nd</sup> March 2018.

16. S.D.Kumar, Participated in one day Faculty development program on “Research perspectives in IC Engines” on December 6<sup>th</sup> 2017, conducted by mechanical engineering association, department of mechanical engineering, SRM institute of science and technology, kattankulathur, Chennai– 603203.

17. S.Uthira & S.D.Kumar, Presented a paper titled, “ topological optimization of lower limb prosthetic leg” in national conference on Recent trends in energy engineering management, (2016), conducted by department of mechanical engineering, associated with EEE, dated 6<sup>th</sup> april 2016.

18. S.D.KUMAR, S.ARUN “ Design and Analysis medium carbon steel crankshaft under dynamic loading”,National Conference conducted by Mahindra Institute of Technology.

19. S.D.KUMAR, R.RAVICHANDRAN, “Design and Fabrication of three Mode operation for four wheel Automobile steering, International journal of Applied Engineering Research, ISSN 0973-4562 Vol 10.68(2015)

20. S.D.KUMAR, D.ARUN, “Design and Fabrication of Automobile pneumatic Bumps and Brake Actuation before collision, International journal of Applied Engineering Research, ISSN 0973-4562 Vol 10.68(2015)

21. S.D.Kumar,”Design and analysis medium carbon steel crankshaft under dynamic loading”, participated and presented a paper in national conference on empowering new generation in improved nutrition and economic opportunity engine, (5<sup>th</sup> April , 2013).

#### Patents:

1.202241069833/Automasted Sprinkler System with Adjustable range and IOT control/09.12.2022.

2.202241058431/Industry4.0 tools can be used as a model for digital human resource management, which will help operations run better published on14.09.2022 .

3.2141030392/Rescue And surveillance Vehicle For Women Safety published on 16.07.2021.

4. 202041040380/3D Printing Filaments fromPlastic and electronic waste published on25.09.2020.

5. 202041040362/An Automated Car Jack/published on24.09.2020.

#### Other Details:

##### Courses

- CAD

##### Research Interest

- Thermal field, Refrigeration, Design and Manufacturing.

## Selected Publications

- S.D.KUMAR,Raja Bala Yoga Naveen, T.Rahul, B.Surrendran, PShanmukhaAravind, "ELECTRICALLY DRIVEN VEHICLE WITH AUTOMATIC AND MANUAL CHARGING,International Journal of Innovative Technology and Exploring Engineering(IJITEE). ISSN:2278-3075,Volume-8 Issue-7, May-2019
- S.D.KUMAR,Utkarsh Namdeo,Ayushmaan Samdhiya,PranjulMishra,K.Dinesh Krishnan "HYPER LOOP TRANSPORTATION SYSTEM ,International Journal of Innovative Technology and Exploring Engineering(IJITEE). ISSN:2278-3075,Volume-8 Issue-7, May-2019
- G.Swaminathan,S.D.Kumar,De.A.Mathivanan,Dr.K.C.Udaiyakumar, E.Vijayaragavan, "DESIGN AND DEVELOPMENT OF MULTI-GROP AUTO WALK,2<sup>nd</sup> International conference on Advances in Mechanical Engineering (ICAME-2018) IOP publishing,IOP conference Series: Materials Science and engineering 402(2018)012153. DOI:10.1088/1757-899X/402/1/012153.
- Y.Phanindra,S.D.Kumar,S.Pughzhendhi, "Experimental Investigation On Al<sub>2</sub>O &Cu Hybrid Nanofluid Using Concentric Tube Heat Exchanger, Science Direct ,Materials today 2214-7853,2017- Elsevier.
- D.K. Mohan kumar, A. Mathivanan, G.Manikandan, S.D. Kumar, "Fabrication And Testing Of 13 Layer Glass Fiber Laminates For Application In Electrical Junction Boxes And Enclosures",Pak. J. Biotechnol. Vol. 15 (Special Issue ICROME 17) Pp. 61-65 (2018) ,www.pjbt.org PISSN: 1812-1837, EISSN 2312-7791
- G. Swaminathan, A. Mathivanan, S.D. Kumar, C. Uthirapathy," **OPTIMIZATION OF PROCESS PARAMETERS FOR GAS METAL ARC WELDING OF DISSIMILAR AA7075 AND AA6063 ALUMINIUM ALLOYS USING ARTIFICIAL NEURAL NETWORKS (ANN)**", Pak. J. Biotechnol. Vol. 15 (Special Issue ICROME 17) Pp. 61-65 (2018) ,www.pjbt.org PISSN: 1812-1837, EISSN 2312-7791
- S.D.KUMAR,GMANIKANDAN&C.UTHIRAPATHI, " DESIGN OF HYBRID VEHICLE USING WIND ENERGY", International journal of mechanical engineering and production engineering ,Research and Development (IJMPERD), ISSN(P): 22496890; ISSN(E):2249-8001 Special issue, Jun 2018,145-151.
- S.D.KUMAR & JAGANATHAN.L, "LOAD SENSING SELF ADJUSTER TO COMPENSATE WEAR IN BRAKES", International journal of mechanical engineering and production engineering ,Research and Development (IJMPERD), ISSN(P): 22496890; ISSN(E):2249-8001 Special issue, Jun 2018,157-168.
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- S.D.Kumar, Participated in one day Faculty development program on "Research perspectives in IC Engines" on December 6<sup>th</sup> 2017, conducted by mechanical engineering association, department of mechanical engineering, SRM institute of science and

technology, kattankulathur, Chennai– 603203.

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- S.D.KUMAR, S.ARUN “ Design and Analysis medium carbon steel crankshaft under dynamic loading”,National Conference conducted by Mahindra Institute of Technology.
- S.D.KUMAR, R.RAVICHANDRAN, “Design and Fabrication of three Mode operation for four wheel Automobile steering, International journal of Applied Engineering Research, ISSN 0973-4562 Vol 10.68(2015)
- S.D.KUMAR, D.ARUN, “Design and Fabrication of Automobile pneumatic Bumps and Brake Actuation before collision, International journal of Applied Engineering Research, ISSN 0973-4562 Vol 10.68(2015)
- S.D.Kumar, “Design and analysis medium carbon steel crankshaft under dynamic loading”, participated and presented a paper in national conference on empowering new generation in improved nutrition and economic opportunity engine, (5<sup>th</sup> April , 2013).

**Working Papers: ALTERNATE MATERIAL FOR MAGNETIC REFRIGERATION SYSTEM, FRICTION STIR WELDING**

**Work in Progress: STUDY OF CHARACTERISCS OF ALTERNATE MATERIAL FOR MAGNETIC REFRIGERATION SYSTEM**

**Participation In Faculty Development Programs/Workshops:**

- Faculty Development Program on “Computational Fluid Dynamics” organized by Eswari Engineering College, Chennai. For 1 week.
- Two weeks Faculty Development Program (AICTE Sponsored) on MODELING AND CONTROL OF HIGH EFFICIENCY ELECTRIC AND HYBRID VEHICLES AND THE FUTURE VEHICLE FLEET IN 2030 organized by Eswari Engineering College, Chennai.
- Faculty Development Program on “Computational Fluid Dynamics” organized by Eswari Engineering College, Chennai. For 1 week.
- One Week Faculty Development Program on “VEHICLE DYNAMICS USING MATLAB Organised by SRI VENKATESWARA COLLEGE OF ENGINEERING, Chennai.
- One Week Faculty Development Program on “GE8292-ENGINEERING MECHANICS” organized by Velammal Institute of Technology, Chennai.
- Completed 12 week Certification course(NPTEL) Fundamental of Artificial Intelligence, and obtained EITE Certification.
- Completed 12 week Certification course(NPTEL) Fundamentals of Welding Science and

Technology, and obtained Certification.

### **Academic Experience**

- Worked as Part Time Lecturer in Pamban Institute of Aeronautical Engg. vellore from June 1998 to November 1998
- Worked as Asst. professor in Chennai school of ship management (A Marine Engineering College) Chennai. For a period of 13 years from December 1998 to June 2011.
- Working as Asst. Professor (Sr.G) in SRM Institute of Science and Technology (formerly known as SRM University) Ramapuram from 1<sup>st</sup> July 2011 to till date.

### **Other Professional Experience**

- Worked as asst. engineer in M/s Hybro chains pvt ltd., Ranipet from June 1996 to May 1996.

### **Google Scholar:**

<https://scholar.google.com/citations?hl=en&authuser=2&user=l6V1GWQAAAAJ>

<https://scholar.google.com/citations?hl=en&user=6Hzo5fkAAAAJ>

### **LinkedIn:**

<https://www.linkedin.com/in/mirnalinee-dhinesh-t-90578459/>