


Kings College of Engineering

Department of Mechanical Engineering

Name : Dr. S. SABANAYAGAM	
Designation :	Associate Professor
Qualification :	B.E., M.E., Ph.D.
Area of Specialization :	Materials Science, Surface Engineering and Composite Materials
Experience :	Teaching: 10 Yrs. UG
	Industry: -NIL
No. of workshop / Conferences / FDP attended :	45
Publication :	Journal National: - 01 International: 10
	Conference National: 03 International: 04
Membership :	Lifetime number of Indian Society for Technical Education, IAENG member.
Achievements :	Anna University 23 rd rank in PG.

PUBLICATIONS

1. R Shankar, KR Balasubramanian, **S Sabanayagam**, R Rajadurai, "Erosion behaviour of micro and nanostructured Cr₃C₂NiCrBSi coating on IN718 alloy via HVOF processing", Surface Topography: Metrology and Properties (2025), 13 (1), 015026, DOI 10.1088/2051-672X/adb3bd.
2. **Sabanayagam Sundaram**, Chockalingam Singaravelu, Vikneswaran Malaiperumal, "Hot corrosion study of plasma-sprayed optimized WC-NiCrB-Al-Co coating mixture on stainless steels for boiler environment", Journal of Materials Engineering and Performance (2024), <https://doi.org/10.1007/s11665-024-09877-7>.
3. N. Magesh, T. Pushparaj and **S. Sabanayagam**, "STUDY ON THE ENGINE CHARACTERISTICS (CI) OF USING PUMPKIN-MAIZEBLENDED BIODIESEL MIXED WITH ADDITIVE (DIETHYL ETHER)", Bulletin of Chemical Society of Ethiopia(2024), 38(4), 1145-1161, <https://dx.doi.org/10.4314/bcse.v38i4.26>.
4. S. Nelson Raja, K. Vadivel, **S. Sabanayagam**, M. Sakthivel, "Evaluation on Mechanical Properties of Natural Fiber Based Epoxy Resin Composites", International Journal for Research in Applied Science & Engineering Technology (IJRASET) (2023), 11 (4), <https://doi.org/10.22214/ijraset.2023.50015>.
5. **Sundaram, Sabanayagam**, Chockalingam Singaravelu, and Vikneswaran Malaiperumal. "Comparative Investigation of Surface Modification and Corrosion Behaviour on SS304 and SS316 Coated with Inconel 625 in Air and Molten Salt Environment." Surface Topography: Metrology and Properties (2022), 10 (4), 045023, <https://doi.org/10.1088/2051-672x/aca3be>.
6. P.P.Shantharaman, M.Melwin Jagadeesh Sridhar & **S.Sabanayagam**, "Mechanical Properties of Aluminium Metal Matrix Composites using Stir Casting Method", Journal of Huazhong University of Science and Technology (2021), 50 (3), Page 10.
7. **Sabanayagam, S.**, and S. Chockalingam. "Analysis of High Temperature Oxidation Behaviour of SS316 by Al₂O₃ and Cr₂O₃ Coating." Materials Today: Proceedings (2020), 33 2641–45,; , <https://doi.org/10.1016/j.matpr.2020.01.218>.
8. N Manimehalai, Mohammad Tanveer, M Sivakumar, **S Sabanayagam** and P Jagan, "Fish descalers: A review", International Journal of Fisheries and Aquatic Studies (2019), 7(1): 89-95.

9. **Sabanayagam S**, Sivakumar M, Jagan P and Vikneswaran M, "PERFORMANCE ANALYSIS OF NANO PARTICLE ECO FRIENDLY CHILLING PLANT FOR FISH PROCESSING", International Journal of Advance and Innovative Research (2018) 5 (3): PP 98 – 107.
10. Mohammad Tanveer ; Sivakumar, M. ; Balasubramanian, S.; Vikneswaran, M. ; **Sabanayagam, S.** ; Jagan, P, "Analysis of engineering properties of shrimp feed pellets", Green Farming (2018), 9 (5), pp.82-896.
11. **Sabanayagam. S** and Gurumoorthy. G, "EXPERIMENTAL INVESTIGATION OF HIGH TEMPERATURE HOT CORROSION BEHAVIOUR OF P91 STEEL", International Journal of Applied Engineering Research (IJAER) (2015), 10 (51), pp.834-839.

BOOK PUBLICATIONS

1. Published a book "Production Engineering" in RK Publications, 978-93-48655-69-1 during Feb, 2025.
2. Published a book "Additive Manufacturing" in RK Publications, 978-93-48655-14--1 during Feb, 2025.

CONFERENCES

1. "Performance and Emission Characteristics of CI Engine Fueled with Hybrid Biodiesel and 1 Pentanol as an Additive", National Conference on Emerging Trends in Engineering and Technology (ETET 2024), ISBN – 978-93-91977-49-8, organized by NIT, Pondicherry on 15.02.24 to 16.02.24.
2. "Experimental Investigation on Physical and Morphological Properties of Al7075 Reinforced Hybrid Metal Matrix Composites", National Conference on Emerging Trends in Engineering and Technology (ETET 2024), ISBN – 978-93-91977-49-8, organized by NIT, Pondicherry on 15.02.24 to 16.02.24.
3. "Oxidation Behavior of Plasma Sprayed IN625 Coating on SS304 for Boiler Environment", International Conference on Emerging Trends in Management, Education, Engineering, Science and Technology (ICEMEEST 2024), ISBN – 978-81-965070-7-7, organized by Indra Ganesan College of Engineering, Trichy on 22.02.24 to 23.02.24.
4. "Analysis of High Temperature Oxidation Behaviour of SS316 by Al₂O₃ and Cr₂O₃ Coating", International Conference on Nanotechnology: Ideas, Innovation and Initiatives (ICN2K19), organized by Syed Ammal Engineering College, Ramanathapuram, on 16-19 December 2019.

PATENT: Nil.

EVENT ORGANISED

1. Webinar on “SolidWorks in Modern Engineering: Tools, Tips and Trends” was organized for III-Year Mechanical Engineering Students on 13.05.2025, Organizing committee
2. Webinar on “Understanding the Fundamentals of Design Engineering and Supply Chain Management” was organized for III and IV year Mechanical Engineering students on 30.09.2024.
3. Webinar “Product Development Processes” was organized for Mechanical Engineering students on 19.02.2024.
4. Webinar “ Paper writing and patents” was organized for Kings College of Engineering students on 28.10.2023.
5. National Level Technical Symposium “MECH STORM 2K23” was organized on 11.10.2023.
6. Webinar “ Application of Theory of Missions” was organized for Mechanical Engineering students on 30.08.2022.

FDP Attended

Atal/NITTTR/ICT Academy programmes

1. Five Days online Faculty Development Programme on “Innovative green energy generation and storage Technologies” (ATAL) organized by Department of Mechanical Engineering, MAHARAJ VIJAYARAM GAJAPATHI RAJ COLLEGE OF ENGINEERING from 02 Dec 2024 to 07 Dec 2024.
2. Five Days online Workshop on “Autodesk Fusion Fundamentals” (ATAL) organized by Department of AUTODESK, Design lab, Hyderabad at 07 Dec 2024.
3. FDP on “Opportunities in Hybrid Manufacturing Technologies” organized by ATAL during 04.12.2023 to 09.12.2023 at Government College of Engineering Thanjavur.
4. AICTE Training And Learning (ATAL) Academy Blended/Hybrid FDP on "IoT for Precision Agriculture and Transportation" from 2023-01-23-2023-01-28 to 2023-01-30-2023-02-03 at GOVERNMENT COLLEGE OF ENGINEERING.
5. AICTE Training And Learning (ATAL) Academy Online Elementary FDP on "Challenges and Opportunities for Electric Vehicle Adoption" from 2021-07-19 to 2021-07-23 at Erode Sengunthar Engineering College.
6. AICTE Training And Learning (ATAL) Academy Online FDP on "Green Technology & Sustainability Engineering" from 2021-01-19 to 2021-01-23 at Gautam Buddha University.

7. AICTE Training And Learning (ATAL) Academy Online FDP on "Internet of Things (IoT)" from 2021-01-25 to 2021-01-29 at Kongunadu College of Engineering and Technology.
8. AICTE Training And Learning (ATAL) Academy Online Elementary FDP on "Design, Synthesis and Characterization of Novel Materials" from 25/10/2021 to 29/10/2021 at INDIAN INSTITUTE OF INFORMATION TECHNOLOGY TIRUCHIRAPPALLI.
9. AICTE Training And Learning (ATAL) Academy Online Elementary FDP on "Nutraceuticals: Basics & Beyond" from 2021-07-12 to 2021-07-16 at Bannari Amman Institute of Technology.
10. AICTE Training And Learning (ATAL) Academy Online FDP on "Training for Social Connectedness & Inspiration" from 2021-02-01 to 2021-02-05 at Ramakrishna Mission Vivekananda Educational & Research Institute Faculty of Disability Management and Special Education.
11. Online Training Programme on " Applications of Cloud Computing in Media and Internet" Conducted by NITTTR-Chennai from 05.08.2024 to 09.08.2024.
12. Online Training Programme on " Smart manufacturing" Conducted by NITTTR-Chennai from 03.07.2023 to 07.07.2023.
13. Online Training Programme on " Advances in materials and manufacturing" Conducted by NITTTR-Chennai from 31.10.2022 to 04.11.2022.
14. Online Training Programme on "Communication Skills for Professionals and Entrepreneurs" Conducted by NITTTR-Chennai from 08.11.2021 to 12.11.2021.
15. Online Training Programme on "Question Paper Authoring and Student Evaluation" Conducted by NITTTR-Chennai from 13.09.2021 to 17.09.2021.
16. Online Training Programme on "Trends in CNC Machining & Metrology" Conducted by NITTTR-Chennai from 04.10.2021 to 08.10.2021.
17. Short Term Training Programme through ICT Mode on Digital Tools for Faculty and Staff organized by NITTTR-Kolkata from 11th July to 15th July, 2022.
18. Online Training Programme on "Nanotechnology & Applications" Conducted by NITTTR-Chennai from 05.07.2021 to 09.07.2021.
19. Online Training Programme on " Management issues of laboratory and workshop classes" Conducted by NITTTR-Kolkata from 04.11.2019 to 08.11.2019.
20. Online Training Programme on " Modern manufacturing systems" Conducted by NITTTR-Kolkata from 18.02.2019 to 22.02.2019.

- 21. 5 days FDP on “Autodesk fusion 360” from 16th June 2025 Organized by ICT Academy and hosted by Government College of Engineering, Thanjavur.
- 22. 3 days FDP on Design Thinking from 23 June 2025 five organized by ICT Academy and hosted by Queens College of Arts and science or women, Thanjavur.
- 23. 4 Days online Live FDP on “Fusion Fundamentals CAM” organized by ICT Academy from 24/09/2024 to 27/09/2024.

Other FDP programmes

- 24. FDP on “Advancements in Marine Engineering: Integrating Materials, Systems and Technologies for Modern Shipbuilding and Operations” organized by AMET University, Reddykuppam during 21.04.2025 to 29.04.2025.
- 25. Five Days online Faculty Development Programme on “Recent Innovations in Mechanical Engineering” organized by Department of Mechanical Engineering, St. Joseph’s College of Engineering and Technology, A.S.Nagar, Elupatti, Thanjavur from 16 Sep 2024 to 21 Sep 2024.
- 26. One Day Faculty Development Programme on “Outcome Based Education” organized by the IQAC, Kings College of Engineering (Autonomous), Punalkulam on 27.08.2024.
- 27. Webinar on “Awareness Program on 5-S” organized by SRM Madurai College of Engineering and Technology- Madurai on 30.03.2024.
- 28. One week FDP on “Design Process and Applications of Additive Manufacturing” organized by EASA College of Engineering and Technology, Coimbatore on during 22.01.2024 to 27.01.2024.
- 29. FDP on “Future Scope of Additive Manufacturing in Industrial and Biomedical Applications” organized by Aditya Engineering College during 17.07.2023 to 21.07.2023.
- 30. STTP on “Computer Aided Design/ Computer Aided Manufacturing/Computer Aided Engineering” organized by Indian Institute of Information Technology Design and Manufacturing (IIITDM) Kancheepuram during 11.05.2023 to 17.05.2023.
- 31. FDP on “Recent Advancement in Materials, Manufacturing and Technology” organized by Swarnandhra College of Engineering and Technology on 30.10.2023 to 04.11.2023.
- 32. Webinar on “Intellectual property Awareness Program” organized by NIPAM, Kolkata during 26.09.23.
- 33. Webinar on “Art of Writing Research Article” organized by NITTTR-Chennai during 25.08.2023.

34. Webinar on “Recent Development in Automobile technology” organized by NITTTR-Chennai during 17.08.2023.
35. Guest Lecture on “Introduction to Intellectual Property and Patent Filing Procedure” organized by CK College of Engineering and Technology during 28.07.2023.
36. Webinar on “Awareness Program on IPR Registration” organized by SRM Madurai College of Engineering and Technology- Madurai during 27.09.2023.
37. FDP on “Design, Processes and Applications of Additive Manufacturing” organized by EASA College of Engineering and Technology, Coimbatore during 22.01.2024 to 27.01.2024.
38. Webinar on “Outcome Based Education” organized by GHOSIA College of Engineering Karnataka during 23.12.2023.
39. Webinar on “Effective Research Proposal Writing for Funding” organized by GHOSIA College of Engineering Karnataka during 18.11.2023.
40. FDP on “Smart Manufacturing” organized by SRM Institute of Science and Technology, Ramapuram during 18.12.2023 to 23.12.2023.
41. Online short term training program on additive manufacturing of metallic and non-metallic components organized by IIITDM, Kancheepuram From 21.12.2022 to 27.12.2022.
42. 3 days virtual FDP programme on Computational design and dynamics, organized by Sree Sakthi engineering college from 27.01.2023 to 29.01.2023.
43. Three days national level virtual workshop on role of assessment and accreditation towards improving the quality of education organized by Kamaraj college of engineering and technology from 08.02.2023 to 10.02.2023.
44. Online Webinar on Wellbeing and Empowerment (SDG-5)-A Mind Perspective Organized by NITTTR, Chennai on 08.03.2023.
45. 1 Day Webinar on “Intellectual property Awareness Program” Organized by NIPAM, Kolkata 21.10.2022
46. 2 Days FDP on “Additive Manufacturing for Environmental Sustainability” Organized by Sri Krishna College of Engineering and Technology, Coimbatore, 24.11.2022 to 25.11.2022.

Reviewer

1. Reviewer for International Journal of Engineering and Technology Since 2022.
2. Reviewer for International Journal of Engineering Research in Africa Since 2022.
3. Reviewer for Advanced Materials Research (Scopus) Since 2022.
4. Reviewer for Applied Mechanics and Materials (Scopus) Since 2022.

RESOURCE PERSON

1. Presented a topic titled “Thermal Barrier Coatings and it’s Temperature Applications”, in St. Joseph College of Engineering and Technology, Thanjavur organized by Department of Mechanical Engineering, on 30.05.2024.
2. Presented an Internal Staff Seminar on “Thermal Barrier Coatings in High Temperature Applications”, organized by Department of Mechanical Engineering, Kings College of Engineering, Punalkulam on 20.11.2024.
3. Presented an Internal Staff Seminar on “The technology ahead in Mechanical Engineering”, organized by Department of Mechanical Engineering, Kings College of Engineering, Punalkulam on 27.03.2024.
4. Presented an ISTE Staff seminar titled “Application of Nano Coating Materials” on 06.09.2019 At the Kings College of Engineering, Punalkulam.

Online Courses attended

1. Value Added Course on “Compendium of Electric Vehicle Engineering” organized by Sri Ramakrishna Engineering College – Coimbatore through online mode and certified.
2. 5 Days TOTP on “Robotic simulation for Manufacturing” organized by Skill Sonics India private limited Bangalore. 21.11.2022 to 30.11.2022.