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Natural Composites Research Group Lab,
King Mongkut's University of Technology North Bangkok,
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Recognized as World's Top 2% of Most-Cited Scientists
Cumulative Impact Factor: 260.349 (2023 Journal's Impact IF)

EDUCATIONAL BACKGROUND

Ph.D. Anna University

Dec 2015

Department of Mechanical Engineering

Dissertation: "Comprehensive characterization of Cissus quadrangularis fiber as an alternative reinforcement for polymer composite"

Advisor: Dr. R. Edwin Raj (IIT Roorkee)

M.Tech. Park College of Engineering and Technology, Coimbatore (9.4/10) May 2011

Engineering Design, Department of Mechanical Engineering

(Gold Medalist)

Dissertation: "Tribological characterization of carbon epoxy composite materials with particulate SiC fillers"

Advisor: Dr. K. Kumaresen

B.E. St. Xavier's Catholic College of Engineering, Nagercoil (83 %) May 2009

Department of Mechanical Engineering

(First class with distinction)

HSC, Sarojini Memorial Higher Secondary School, Orappanavilai (86 %) May 2005

SSLC, Government Higher Secondary School, Koduppaikuzhi (90 %) May 2003

MACHINES HANDLED

Compression molding machine, pin-on-disc tribometer, three-body abrasive wear test rig, Instron testing machine, digital hardness Testing Machine, differential scanning calorimeter, optical microscope, Fourier transform infrared spectroscopy, X-ray diffraction, DSC/TGA, scanning electron microscope (SEM), low- and high-impact testing machine

SKILLS DEVELOPED

Auto CAD, Creo, Ansys, MATLAB, OriginLab, Latex, Minitab, Mendeley, EdrawMax.

RESEARCH INTERESTS

Biomaterials, Nano-composites, advanced strength of materials, material characterization, tribology, polymer processing, product design and development, natural fibers and their polymer composites preparation and characterization

HONORS AND FELLOWSHIPS

Recognized as **World's Top 2% of Most-Cited Scientists**

Recognized by Stanford University's list (published by Elsevier) World's Top 2% Scientists 2022 (top 234th rank in Thailand and Top 20th rank under Materials Category in Thailand) 2023

Dedicated Teaching Award

Rohini College of Engineering and Technology, Palkulam, Kanyakumari. 2019 - Annual Day Award Function 2019

Dedicated Researcher Award

Rohini College of Engineering and Technology, Palkulam, Kanyakumari. 2018 - Annual Day Award Function. 2018

Dedicated Teaching Award

Rohini College of Engineering and Technology, Palkulam, Kanyakumari 2017 - Annual Day Award Function 2017

Innovative Technological Research & Dedicated Teaching Professional Award

2017 JETR Convention on Innovative Technological Scientific Research Strategies in Science, Engineering and Medical Technology - Organized by Innovative Scientific Research Professional Malaysia (ISRPM), held at Kuala Lumpur, Malaysia 2017

DST - INSPIRE Fellowship

Awarded Fellowship by Department of Science and Technology, Govt. of India (DST) 2012

GOLD Medalist

Anna University - Coimbatore, Engineering Design, Department of Mechanical Engineering, Park College of Engineering and Technology, Coimbatore 2011

School First, SSLC, Government Higher Secondary School, Koduppaikuzhi

2003

YOUNG SCIENTIST

2000

Attended a three-year intensive training program for **Young Scientist**, sponsored by the Ministry of Human Resource and Development, Govt. of India, the **Tamil Nadu State Council for Science and Technology, Govt. of Tamil Nadu** and the Noorul Islam Educational Trust, Thuckalay

PEER-REVIEWED JOURNAL ARTICLES (Published)

1. Raja Somasundaram, Meena Somasundaram, Premkumar Ananchaperumal, Indran Suyambulingam, Suchart Siengchin (2023). Enhancing properties and sustainability: Surface modified Cymbopogon flexuosus stem fiber for green composite materials in Polymer Composites, *Polymer Composites*, Wiley Online Library (Impact Factor: 5.23).
2. Divya Divakaran, Malinee Sriariyanun, Indran Suyambulingam, MR Sanjay, Suchart Siengchin (2023). Exfoliation and physico-chemical characterization of novel bioplasticizers from Nelumbo nucifera leaf for biofilm application, *Heliyon*, Vol 9 (2023), Elsevier (Impact Factor: 4).
3. Praveenkumara Jagadeesh, Madhu Puttegowda, Indran Suyambulingam, Manoj Kumar Gupta, Sanjay Mavinkere Rangappa, Suchart Siengchin (2023). Analysis of friction and wear performance of eco-friendly basalt filler reinforced polylactic acid composite using the Taguchi approach, *Journal of Thermoplastic Composite Materials*, SAGE (Impact Factor: 3.3).
4. Gurukarthik Babu Balachandran, P Narayanasamy, Anandha Balaji Alexander, Prince Winston David, Rajesh Kannan Mariappan, Muthu Eshwaran Ramachandran, Suyambulingam Indran, Sanjay Mavinkere Rangappa, Suchart Siengchin (2023). Multi-analytical investigation of the physical, chemical, morphological, tensile, and structural properties of Indian mulberry (*Morinda tinctoria*) bark fibers, *Heliyon*, Vol 9(11), Elsevier (Impact Factor: 4).
5. Divya Divakaran, Indran Suyambulingam, MR Sanjay, Vijay Raghunathan, Vinod Ayyappan, Suchart Siengchin (2023). Isolation and characterization of microcrystalline cellulose from an agro-waste tamarind (*Tamarindus indica*) seeds and its suitability investigation for biofilm formulation, *International Journal of Biological Macromolecules*, Vol 254, 87-110, Elsevier (Impact Factor: 8.2).
6. Divya Sundarraj, Grace Annapoorani Soundarajan, Indran Suyambulingam, Divya Divakaran, Sanjay Mavinkere Rangappa, Suchart Siengchin (2023). Extraction and Characterization of Novel Ligno-Cellulosic Fiber from *Wrightia tinctoria* and *Cebia pentandra* Plant for Textile and Polymer Composite Applications, *Pertanika Journal of Science & Technology*, 31 (S1), 125-138, (Scopus Indexed).

7. Felix Sahayaraj Arockiasamy, Indran Suyambulingam, Iyyadurai Jenish, Divya Divakaran, Sanjay Mavinkere Rangappa, Suchart Siengchin (2023). A Comprehensive Review of Real-time Monitoring and Predictive Maintenance Techniques: Revolutionizing Natural Fibre Composite Materials Maintenance with IoT, *Pertanika Journal of Science & Technology*, 31 (S1), 87-110, (Scopus Indexed).
8. Praveenkumara Jagadeesh, Sanjay Mavinkere Rangappa, Madhu Puttegowda, Indran Suyambulingam, Suchart Siengchin (2023). Thermal analysis of sustainable and micro-filler basalt reinforced polymer biocomposites for lightweight applications, *Journal of Building Engineering*, Elsevier (Impact Factor: 6.4).
9. Senthilkumar Boominathan, Indran Suyambulingam, Sunesh Narayanaperumal, Divya Divakaran, P Senthamaraiannan, Suchart Siengchin (2023). Comprehensive characterization of novel bioplasticizer from *Pandanus tectorius* leaves: A sustainable biomaterial for biofilm applications, *Macromolecular Research*, 31, pages 1061–1075, Springer (Impact Factor: 2.4).
10. S Gokulkumar, Indran Suyambulingam, Divya Divakaran, G Suganya Priyadharshini, M Aravindh, Jenish Iyyadurai, M Sanju Edwards, Suchart Siengchin (2023). Facile exfoliation and physicochemical characterization of biomass-based cellulose derived from *Lantana aculeata* leaves for sustainable environment, *Macromolecular Research*, Springer (Impact Factor: 2.4).
11. Indran Suyambulingam, Sanjay Mavinkere Rangappa, Suchart Siengchin (2023). Advanced materials and technologies for engineering applications, *Applied Science and Engineering Progress*, Vol. 16(3), 1–5 (Scopus Indexed).
12. J Maniraj, Felix Sahayaraj Arockiasamy, C Ram Kumar, D Ashok Kumar, I Jenish, Indran Suyambulingam, Sanjay Mavinkere Rangappa, Suchart Siengchin (2023). Machine learning techniques for the design and optimization of polymer composites: A review, Vol. 428, 1-7, E3S Web of Conferences, EDP Sciences (Scopus Indexed).
13. A Felix Sahayaraj, S Dhamotharan, D Sandeep, P Ramachandran, I Jenish, Divya Divakaran, Indran Suyambulingam, MR Sanjay, Suchart Siengchin (2023). Sustainable smart polymer composite materials: A comprehensive review, Vol. 428, 1-9, E3S Web of Conferences, EDP Sciences (Scopus Indexed).
14. Indran Suyambulingam, Lekshmi Gangadhar, Siva Sankar Sana, Divya Divakaran, Suchart Siengchin, Lekshmi A. Kurup, Jenish Iyyadurai, and K. E. Albert Bernad Noble (2023). Chitosan biopolymer and its nanocomposites: Emerging material as adsorbent

in wastewater treatment. *Advances in Materials Science and Engineering*, Volume 2023, Article ID 9387016, 20 pages, Hindawi (Impact Factor: 3.3).

15. Sunesh, Narayana Perumal, Indran Suyambulingam, Divya Divakaran, and Suchart Siengchin (2023). Isolation of microcrystalline cellulose from *Valoniopsis pachynema* green macroalgae: Physicochemical, thermal, morphological, and mechanical characterization for biofilm applications, *Waste and Biomass Valorization*, Springer (Impact Factor: 3.2).
16. Rao, H. Jeevan, S. Singh, P. Janaki Ramulu, Indran Suyambulingam, M. R. Sanjay, and Suchart Siengchin (2023). Isolation and characterization of a novel lignocellulosic fiber from *Butea monosperma* as a sustainable material for lightweight polymer composite applications, *Biomass Conversion and Biorefinery*, Springer (Impact Factor: 4.050).
17. Joe, M. Sergius, D. Sudherson, Indran Suyambulingam, Suchart Siengchin, and Guruswamy Rajeshkumar. (2023). Characterization of novel cellulosic plant fiber reinforced polymeric composite from *Ficus benjamina* L. stem for lightweight applications, *Biomass Conversion and Biorefinery*, 13, pages 14267–14280, Springer (Impact Factor: 4.050).
18. Balavairavan, B., S. S. Saravanakumar, P. Senthamarai kanna, S. Indran, and Suchart Siengchin (2023). Evaluation of physiochemical, mechanical, thermal, UV barrier, and biodegradation properties of PVA/corn (*Zea mays*) cob powder biofilms, *Biomass Conversion and Biorefinery*, Springer (Impact Factor: 4.050).
19. Divakaran, Divya, Malinee Sriariyanun, Shaik Azad Basha, Indran Suyambulingam, M. R. Sanjay, and Suchart Siengchin (2023). Physico-chemical, thermal, and morphological characterization of biomass-based novel microcrystalline cellulose from *Nelumbo nucifera* leaf: Biomass to biomaterial approach, *Biomass Conversion and Biorefinery*, Springer (Impact Factor: 4.050).
20. Iyyadurai, Jenish, Felix Sahayaraj Arockiasamy, Tamil Selvan Manickam, Indran Suyambulingam, Suchart Siengchin, M. Appadurai, and E. Raj (2023). Revolutionizing polymer composites: Boosting mechanical strength, thermal stability, water resistance, and sound absorption of *Cissus quadrangularis* stem fibers with nano silica, *Silicon*, 15, pages 6407–6419 (Impact Factor: 3.4).

21. Edayadulla, Naushad, Divya Divakaran, Shanmuga Sundari Chandraraj, Malinee Sriariyanun, Indran Suyambulingam, M. R. Sanjay, and Suchart Siengchin (2023). Suitability study of novel bio-plasticizer from *Agave sisalana* leaf for biofilm applications: A biomass to biomaterial approach, *Biomass Conversion and Biorefinery*, Springer (Impact Factor: 4.050).
22. Divakaran, Divya, Malinee Sriariyanun, Rantheesh Jagadeesan, Indran Suyambulingam, M. R. Sanjay, and Suchart Siengchin (2023). Isolation and characterization of an agro-industrial waste-based novel cellulosic micro fillers from mustard (*Brassica juncea*) seed oil cake: A waste to wealth approach, *Biomass Conversion and Biorefinery*, Springer (Impact Factor: 4.050).
23. Narayana Perumal, Sunesh, Indran Suyambulingam, Divya Divakaran, and Suchart Siengchin (2023). Extraction and physico-mechanical and thermal characterization of a novel green bio-plasticizer from *Pedaliium murex* plant biomass for biofilm application, *Biomass Conversion and Biorefinery*, Springer (Impact Factor: 4.050).
24. Suganya, Priyadharshini, G. T. Velmurugan, Indran Suyambulingam, M. R. Sanjay, Suchart Siengchin, and R. Vishnu (2023). Characterization of cellulosic plant fiber extracted from *Waltheria indica* Linn. stem, *Biomass Conversion and Biorefinery*, Springer (Impact Factor: 4.050).
25. Ganapathy, T., Karuppasamy Ramasamy, Indran Suyambulingam, and Suchart Siengchin (2023). Synergetic effect of graphene particles on novel biomass-based *Ficus benghalensis* aerial root/flax fiber-reinforced hybrid epoxy composites for structural application, *Biomass Conversion and Biorefinery*, Springer (Impact Factor: 4.050).
26. Kavimani, V., Divya Divakaran, Malinee Sriariyanun, G. Suganya Priyadharshini, P. M. Gopal, Indran Suyambulingam, M. R. Sanjay, and Suchart Siengchin (2023). Facile exfoliation and physicochemical characterization of biomass-based cellulose derived from *Pandanus tectorius* leaves for sustainable environment, *Biomass Conversion and Biorefinery*, Springer (Impact Factor: 4.050).
27. Ahmed Belaadi, Abdelaziz Lekrine, Messaouda Boumaaza, Hassan Alshahrani, Mostefa Bourchak, Khalid A Juhany, Fouad Damiri, Indran Suyambulingam, Suchart Siengchin (2023). Water uptake of HDPE reinforced with *Washingtonia* fibre biocomposites: Mathematical modelling using artificial neural network, response surface methodology and genetic algorithm, *Advances in Materials and Processing Technologies*, Taylor & Francis (Impact Factor: 2.2).

28. K Pratheesh, P Narayanasamy, R Prithivirajan, T Ramkumar, P Balasundar, Indran Suyambulingam, MR Sanjay, Suchart Siengchin (2023). Cenosphere filled epoxy composites: Structural, mechanical, and dynamic mechanical studies, *Biomass Conversion and Biorefinery*, Springer (Impact Factor: 4.050).
29. N Sunesh, Indran Suyambulingam, Divakaran Divya, Suchart Siengchin (2023). Comprehensive characterization of novel *Borassus flabellifer* flower biomass based microcrystalline cellulose reinforced with polylactic acid (PLA) biofilm for futuristic applications, *Biomass Conversion and Biorefinery*, Springer (Impact Factor: 4.050).
30. PM Gopal, Indran Suyambulingam, Divakaran Divya, V Kavimani, MR Sanjay, Suchart Siengchin (2023). Exfoliation and physicochemical characterization of novel biomass-based microcrystalline cellulose derived from *Millettia pinnata* leaf, *Biomass Conversion and Biorefinery*, Springer (Impact Factor: 4.050).
31. Jagadeesh Praveenkumara, Sanjay Mavinkere Rangappa, Indran Suyambulingam, Suchart Siengchin, Madhu Puttegowda, Joseph Selvi Binoj, Sergey Gorbatyuk, Anish Khan, Mrityunjay Doddamani, Vincenzo Fiore, Marta María Moure Cuadrado (2023). Drilling characteristics and properties analysis of fiber reinforced polymer composites: A comprehensive review. *Heliyon*, Elsevier (Impact Factor: 3.776).
32. Sergius Joe, M., Prince Sahaya Sudherson, Indran Suyambulingam, Suchart Siengchin (2023). Extraction and characterization of novel biomass-based cellulosic plant fiber from *Ficus benjamina* L. stem for a potential polymeric composite reinforcement, *Biomass Conversion and Biorefinery*, 13, pages 14225–14239, Springer (Impact Factor: 4.050).
33. Jenish Iyyadurai, Felix Sahayaraj Arockiasamy, Tamilselvan Manickam, Srinivasan Rajaram, Indran Suyambulingam, Suchart Siengchin (2023). Experimental investigation on mechanical, thermal, viscoelastic, water absorption, and biodegradability behavior of *Sansevieria ehrenbergii* fiber reinforced novel polymeric composite with the addition of coconut shell ash powder, *Journal of Inorganic and Organometallic Polymers and Materials*, 33, pages 796–809, Springer (Impact Factor: 4).
34. Indran, S., Divya, D., Raja, S., Suchart Siengchin (2023). Physico-chemical, mechanical and morphological characterization of *Furcraea Selloa* K. Koch plant leaf fibers: An exploratory investigation, *Journal of Natural Fibers*, Vol. 20(1), 1–17, Taylor & Francis (Impact Factor: 3.507).

35. Rantheesh, J., Indran, S., Raja, S., Divya, D., Suchart Siengchin (2023). Isolation and characterization of novel micro cellulose from *Sesamum indicum* agro-industrial residual waste oil cake: conversion of biowaste to wealth approach, *Biomass Conversion and Biorefinery*, 13, pages 4427–4441, Springer (Impact Factor: 4.050).
36. Rantheesh, J., Indran, S., Divya, D., Suchart Siengchin (2022). Novel sesame oil cake biomass waste derived cellulose micro-fillers reinforced with basalt/banana fibre-based hybrid polymeric composite for lightweight applications, *Biomass Conversion and Biorefinery*, 13, pages 4443–4458, Springer (Impact Factor: 4.050).
37. Rantheesh, J., Indran, S., Raja, S., Suchart Siengchin (2022). Isolation and characterization of novel micro cellulose from *Azadirachta indica* A. Juss agro-industrial residual waste oil cake for futuristic applications, *Biomass Conversion and Biorefinery*, 13, pages 4393–4411, Springer (Impact Factor: 4.050).
38. R ArunRamnath, S Murugan, MR Sanjay, A Vinod, S Indran, Ashraf Y Elnaggar, Ahmed M Fallatah, Suchart Siengchin (2022). Characterization of novel natural cellulosic fibers from *Abutilon indicum* for potential reinforcement in polymer composites, *Polymer Composites*, 44(1), pages 340–355, Wiley Online Library (Impact Factor: 5.2).
39. Joseph Selvi Binoj, Natarajan Manikandan, Bright Brailson Mansingh, Vadivel Nayanar Anbazhagan, Govindarajan Bharathiraja, Suchart Siengchin, Mavinkere Rangappa Sanjay, Suyambulingam Indran (2022). Taguchi's optimization of areca fruit husk fiber mechanical properties for polymer composite applications, *Fibers and Polymers*, 23, pages 3207–3213, Springer (Impact Factor: 2.5).
40. Sergius Joe Mohan, Prince Sahaya Sudherson Devasahayam, Indran Suyambulingam, Suchart Siengchin (2022). Suitability characterization of novel cellulosic plant fiber from *Ficus benjamina* L. aerial root for a potential polymeric composite reinforcement, *Polymer Composites*, 43(12), pages 9012-9026 Wiley Online Library (Impact Factor: 5.23).
41. Siva Ramasamy, Amutha Karuppuchamy, Jeya Jeevahan Jayaraj, Indran Suyambulingam, Suchart Siengchin, Steffen Fischer (2022). Comprehensive characterization of novel Robusta (AAA) banana bracts fibers reinforced polylactic acid based biocomposites for lightweight applications, *Polymer Composites*, 43(11), pages 8569-8580, Wiley Online Library (Impact Factor: 5.23).

42. Narayana Perumal Sunesh, Suyambulingam Indran, Divakaran Divya, Siengchin Suchart (2022). Isolation and characterization of novel agrowaste-based cellulosic micro fillers from *Borassus flabellifer* flower for polymer composite reinforcement, *Polymer Composites*, 43(9), pages 6476-6488, Wiley Online Library (Impact Factor: 5.23).
43. D Divya, Indran Suyambulingam, MR Sanjay, Suchart Siengchin (2022). Suitability examination of novel cellulosic plant fiber from *Furcraea selloa* K. Koch peduncle for a potential polymeric composite reinforcement, *Polymer Composites*, 43(7), pages 4223-4243, Wiley Online Library (Impact Factor: 5.23).
44. KN Bharath, D Roopa, S Indran, S Basavarajappa, MR Sanjay, Suchart Siengchin (2022). Influence of the stacking sequence and coconut husk micro fillers on the drilling parameters of coconut leaf sheath/glass/jute fiber hybrid phenol formaldehyde composites, *Materials Today: Proceedings*, Vol. 52(5), 2427-2431, Elsevier.
45. Raja, S., Rajesh, R., Indran, S., Divya, D., Sanjay, M. R., Suchart Siengchin (2022). Utilization of discarded *Cymbopogon flexuosus* root waste as a novel lignocellulosic fiber for lightweight polymer composite application, *Polymer Composites*, 43(5), pages 2838-2853 Wiley Online Library (Impact Factor: 5.23).
46. Sathish Gandhi, V. C., Jenish, I., Indran, S., Yugendra Rajan, D. (2022). Mechanical and thermal analysis of *Cissus quadrangularis* stem fiber/epoxy composite with micro-red mud filler composite for structural application, *Transactions of the Indian Institute of Metals*, 75, pages 737-747, Springer (Impact Factor: 1.6).
47. Raja, S., Rajesh, R., Indran, S., Rimal Isaac, Divya, D. (2021). Synthesis and characterization of cost-effective industrial discarded natural ceramic particulates from *Cymbopogon flexuosus* plant shoot for potential polymer/metal matrix reinforcement, *Polymer Bulletin*, 79, pages 8765-8806, Springer (Impact Factor: 3.2).
48. Jenish, I., Sathish Gandhi, V. C., Indran, S., Rajeshkumar, G. (2021). Sustainable development of *Cissus quadrangularis* stem fiber/epoxy composite on abrasive wear rate, *Journal of Natural Fibers*, 19(14), pages 9283-9295, Taylor & Francis (Impact Factor: 3.5).
49. S Indran, D Divya, Sanjay Mavinkere Rangappa, Suchart Siengchin, P Merlin Christy, LR Gopinath (2021). Perspectives of anaerobic decomposition of biomass for sustainable

biogas production: A review, *E3S Web of Conferences*, Vol. 302, Pages 1-10, EDP Sciences (Scopus Indexed).

50. Manimekalai, G., Kavitha, S., Divya, D., Indran, S., Binoj, J.S (2021). Characterization of enzyme-treated cellulosic stem fiber from *Cissus quadrangularis* plant: An exploratory investigation, *Current Research in Green and Sustainable Chemistry*, Vol. 4, 1-12, Elsevier.
51. Raja, S., Rajesh, R., Indran, S., & Rimal Isaac (2021). Comprehensive characterization of industrially discarded *Cymbopogon flexuosus* stem fiber reinforced unsaturated polyester composites: Effect of fiber length and weight fraction, *Journal of Natural Fibers*, 19(13), pages 7241-7256, Taylor & Francis (Impact Factor: 3.5).
52. Nasmi Herlina Sari, Suteja Suteja, Ilyas, R.A., Edi Syafri, & Indran, S. (2021). Characterization of the density and mechanical properties of corn husk fiber reinforced polyester composites after exposure to ultraviolet light, *Functional Composites and Structures*, Vol. 3(3), 1-15, The Korean Society for Composite Materials and IOP Publishing Limited (Impact Factor: 2.8).
53. Jayanthi, B., Divya, D., Indran, S., Aruna, M., Karthika, R., Arjunan, S., Selvankumar, T., Manikandan, E., & Santhi, R. (2021). Influence of freeze-drying and fresh cooking on starch morphology and physicochemical and thermal properties of various tropical tubers, *International Journal of Biological Macromolecules*, Vol. 183, pages 1794-1806, Elsevier (Impact Factor: 8.2).
54. Raja, S., Rajesh, R., Indran, S., Divya, D., & Suganya Priyadharshini, G. (2021). Characterization of industrial discarded novel *Cymbopogon flexuosus* stem fiber: A potential replacement for synthetic fiber, *Journal of Industrial Textiles*, 51(1), pages 1207-1234, Sage (Impact Factor: 3.2).
55. Sumesh, K.R., Kavimani, V., Rajeshkumar, G., Indran, S. & Anish Khan (2021). Effect of banana, pineapple and coir fly ash filled with hybrid fiber epoxy based composites for mechanical and morphological study, *Journal of Material Cycles and Waste Management*, 23, pages 1277-1288, Sage (Impact Factor: 3.1).
56. Rajeshkumar, G., Hariharan, V., Indran, S., Sanjay, M.R., Suchart Siengchin, Prakash Maran, J., Naif Abdullah Al-Dhabi & Ponmurugan Karuppiyah. (2021). Influence of sodium hydroxide (NaOH) treatment on mechanical properties and morphological behaviour of Phoenix sp. fiber/epoxy composites, *Journal of Polymers and the Environment*, 29, pages 765-774, Springer (Impact Factor: 5.3).

57. Muthu chozha rajan, B., Indran,S., D. Divya, D., Narayanasamy, P., Anish Khan, Abdullah M. Asirie, F., & Nagarajan, S. (2020). Mechanical and thermal properties of *Chloris barbata* flower fiber/epoxy composites: Effect of alkali treatment and fiber weight fraction, *Journal of Natural Fibers*, 19(9), pages 3453-3466, Taylor & Francis (Impact Factor: 3.5).
58. Jenish, I., Sathish Gandhi, V. C., Edwin Raj,R., Basavarajappa, S., Indran, S., Divya, D., Kumaravelan, R.(2020). A new study on tribological performance of *Cissus quadrangularis* stem fiber/epoxy with red mud filler composite, *Journal of Natural Fibers*, 19(9), pages 3502-3516, Taylor & Francis (Impact Factor: 3.5).
59. Jenish, I., Sathish Gandhi, V. C., Basavarajappa, S., Indran, S., Divya, D.,Yucheng Liu, Sanjay, M.R. & Suchart Siengchin (2020). Tribo-mechanical characterization of carbonized coconut shell micro particle reinforced with *Cissus quadrangularis* stem fiber/epoxy novel composite for structural application, *Journal of Natural Fibers*, 19(8), Pages 2963-2979, Taylor & Francis (Impact Factor: 3.5).
60. Sumesh, K.R., Kavimani, V., Rajeshkumar, G., Ravikumar,P. & Indran, S. (2020). An investigation into the mechanical and wear characteristics of hybrid composites: Influence of different types and content of biodegradable reinforcements, *Journal of Natural Fibers*, 19(8), pages 2823-2835, Taylor & Francis (Impact Factor: 3.5).
61. Sumesh, K.R., Kavimani, V., Rajeshkumar, G., Indran, S. & Anish Khan (2020). Mechanical, water absorption and wear characteristics of novel polymeric composites: Impact of hybrid natural fibers and oil cake filler addition, *Journal of Industrial Textiles*, 51(4), pages 5910-5937 , Sage (Impact Factor: 3.2).
62. Moshi, AAM., Ravindran,D., Sundara Bharathi, S.R., Padma, S.R., Indran, S. & D. Divya, D.(2020). Characterization of natural cellulosic fiber extracted from *Grewia damine* flowering plant's stem, *International Journal of Biological Macromolecules*, Vol. 164, pages 1246-1255, Elsevier (Impact Factor: 8.2).
63. Gurukarthik Babu, B., Princewinston, D., Saravanakumar, S.S., Anish Khan, P.V. Aravind Bhaskar, P.V., Indran, S. & Divya, D. (2020) Investigation on the physicochemical and mechanical properties of novel alkali-treated *Phaseolus vulgaris* fibers, *Journal of Natural Fibers*, 19(2), pages 770-781, Taylor & Francis (Impact Factor: 3.5).

64. Moshi, AAM., Ravindran, D., Sundara Bharathi, S.R., Indran, S & Suganya Priyadharshini G. (2020). Characterization of surface-modified natural cellulosic fiber extracted from the root of *Ficus religiosa* tree, *International Journal of Biological Macromolecules*, 156, 997–1006, Elsevier (Impact Factor:8.2).
65. Moshi, AAM., Ravindran, D., Sundara Bharathi, S.R., Indran, S., Saravanakumar, S.S. & Liu, Y. (2019). Characterization of a new cellulosic natural fiber extracted from the root of *Ficus religiosa* tree, *International Journal of Biological Macromolecules*, 142, 212–221, Elsevier (Impact Factor:8.2).
66. Divya, D. Gopinatha, L. R. & Indran, S. (2019) Analysis of the effect of enzyme substitution on feedstock to enhance biogas production, *International Journal of Research and Analytical Reviews*, 6(2), pp. 964–973. (UGC Approved - Impact Factor: 5.75)
67. Indran, S., Edwin Raj, R., Daniel, B.S.S. & Binoj, J.S. (2018), Comprehensive characterization of natural *Cissus quadrangularis* stem fiber composites as an alternate for conventional FRP composites, *Journal of Bionic Engineering*, 15(5), PP. 914–923. Springer (Impact Factor: 2.325)
68. Divya, D., Gopinath, L. R., Sreeremya, S., Indran, S. (2018), Enhancement of substrate decomposition through potential hydrolytic bacteria for cumulative biogas production, *International Journal of Applied Science and Biotechnology*, 6(4), PP. 386-396 (Cosmos Impact Factor : 4.215)
69. Binoj, J.S., Edwin Raj, R., & Indran, S. (2018). Characterization of *Tamarindus indica* fruit fibers as potential alternate for man-made vitreous fibers in polymer composites, *Process Safety and Environmental Protection*, 116, pages 527–534. Elsevier (Impact Factor: 7.8).
70. Indran, S., Edwin Raj, R., Divya, D. & Darish Jeswin Dhas, S. (2016). Mechanical characterization of *cissus quadrangularis* stem/glass fiber hybrid composites, *Global Journal for Research Analysis*, Vol. 5, pages 209–211. (Impact Factor: 4.547)
71. Indran, S., Edwin Raj, R., Daniel, B.S.S. & Saravanakumar, S.S. (2015). Cellulose powder treatment on *Cissus quadrangularis* stem fiber-reinforcement in unsaturated polyester matrix composites, *Journal of Reinforced Plastics and Composites*, Vol. 35(3), pages 212-227. Sage (Impact Factor:3.383)
72. Divya, D. Gopinatha, L. R., Indran, S. & Merlin Christy, P. (2015). Enhancement of biogas production through sustainable feedstock utilization by co-digestion, *International Journal of Plant, Animal and Environmental Sciences*, Vol. 5(3), pages 88-94. (Impact Factor: 1.028)

73. Indran, S. & Edwin Raj, R. (2015). Characterization of new natural cellulosic fiber from *Cissus quadrangularis* stem, *Carbohydrate Polymers*, Vol. 117, pp. 392–399. Elsevier (Impact Factor:11.2)
74. Indran, S., Edwin Raj, R., & Sreenivasan, V. S. (2014). Characterization of new natural cellulosic fiber from *Cissus quadrangularis* root. *Carbohydrate Polymers*, Vol. 110, pages 423–429. Elsevier (Impact Factor:11.2)
75. Prabhu Stalin, J. R., Jenish, I. & Indran, S. (2014). Tribological characterization of carbon epoxy composite materials with particulate silane treated SiC fillers, *Advanced Materials Research*, Vol. 984–985, pages 331–335 (Impact Factor: 0.5).
76. Kumaresan, K., Chandramohan, G., Senthilkumar, M., Suresha, B., & Indran, S. (2011). Dry sliding wear behaviour of carbon fabric-reinforced epoxy composite with and without silicon carbide. *Composite Interfaces*, Vol. 18, pp. 509–526. Taylor & Francis (Impact Factor: 2.6).

BOOK PUBLISHED:

1. Co-editor of “Proceedings of the International Symposium on Lightweight and Sustainable Polymeric Materials (LSPM23)” **Springer Proceedings in Materials**. Sanjay M.R et al. (eds.),
ISSN 2662-3161/ ISSN 2662-317X (electronic)
ISBN 978-981-99-5566-4
ISBN 978-981-99-5567-1 (eBook)
<https://doi.org/10.1007/978-981-99-5567-1>

BOOK CHAPTERS PUBLISHED:

2. Divya Divakaran, Malinee Sriariyanun, Merlin Christy Paul, Indran Suyambulingam, Sanjay Mavinkere Rangappa, Suchart Siengchin (2023). Biodiesel production from microalgal resources: Harvest and postharvest technologies. **Elsevier - Woodhead Publishing**. Jeyabalan Sangeetha et al. (eds.), *Microalgal Biomass for Bioenergy Applications*, Woodhead Series in Bioenergy, Chapter 11, pp. 205–231.
ISBN: 978-0-443-13927-7
<https://doi.org/10.1016/B978-0-443-13927-7.00007-4>
3. Indran Suyambulingam, S Raja, Divya Divakaran, MR Sanjay, Suchart Siengchin, R Santhi (2022). Green Methods for Surface Modification of Bast Fibers. **Springer Nature Singapore**. G. Rajeshkumar et al. (eds.), *Bast Fibers and Their Composites: Processing, Properties and Applications*, Springer Series on Polymer and Composite Materials, Chapter 4, pp. 81–94.
ISBN: 978-981-19-4865-7 / ISBN: 978-981-19-4866-4 (eBook)
<https://doi.org/10.1007/978-981-19-4866-4>

4. S Indran, S Raja, D Divya, G Rajeshkumar (2022). Novel plant, their composites and applications. **Elsevier - Woodhead Publishing**. Sanjay M.R. et al. (eds.), *Plant Fibers, Their Composites, and Applications*, The Textile Institute Book Series-2022, Chapter 19, pp. 437–456.
ISBN: 978-0-12-824528-6
<https://doi.org/10.1016/C2020-0-01735-4>
5. D Divya, S Yamuna Devi, S Indran, S Raja, KR Sumesh (2022). Extraction and modification of natural plant fibers – A comprehensive review. **Elsevier - Woodhead Publishing**. Sanjay M.R. et al. (eds.), *Plant Fibers, Their Composites, and Applications*, The Textile Institute Book Series-2022, Chapter 2, pp. 25–50.
ISBN: 978-0-12-824528-6
<https://doi.org/10.1016/C2020-0-01735-4>
6. B Brailson Mansingh, JS Binoj, N Manikandan, N Prem Sai, Suchart Siengchin, Sanjay Mavinkere Rangappa, KN Bharath, S Indran (2022). Kenaf fibers, their composites and applications. **Elsevier - Woodhead Publishing**. Sanjay M.R. et al. (eds.), *Plant Fibers, Their Composites, and Applications*, The Textile Institute Book Series-2022, Chapter 12, pp. 283–304.
ISBN: 978-0-12-824528-6
<https://doi.org/10.1016/C2020-0-01735-4>
7. Bharath, K.N., Dileepkumar, S.G., Manjunatha, G.B., Amith Kumar, S.J., Indran, S., Binoj, J.S.(2021). Optimization of parametric study on drilling characteristics of sheep wool reinforced composites. Springer Nature Singapore. Sanjay M.R et al. (eds.), *Advances in Bio-Based Fiber: Moving Towards a Green Society*, The Textile Institute Book Series - 2022, Chapter 10, pp. 237–248.
ISBN: 978-0-12-824543-9
<https://doi.org/10.1016/B978-0-12-824543-9.00018-9>
8. Raja, S., Rajesh, R., Indran, S., & Divya, D. (2021). Effect of fiber loading rate on various properties of the fiber reinforced polymer composites. Springer Nature Singapore. Sanjay M.R et al. (eds.), *Fracture Failure Analysis of Fiber Reinforced Polymer Matrix Composites*, First Edition, Chapter 2, pp. 27–45.
ISBN: 9781119641797 / ISBN: 9781119641803 (eBook)
https://doi.org/10.1007/978-981-16-0642-7_2
9. Divya, D., Indran, S., Sanjay, M.R., Suchart Siengchin (2021). Forecasts of natural fiber reinforced polymeric composites and its degradability concerns – A review. **Wiley Online Library**. A. Khan et al. (eds.), *Biobased Composites: Processing, Characterization, Properties, and Applications*, First Edition, Chapter 13, pp. 175–196.
ISBN: 978-981-16-0641-0 / ISBN: 978-981-16-0642-7 (eBook)
<https://doi.org/10.1002/9781119641803>

10. Bharath, K. N., Basavarajappa, S., **Indran, S.**, & Binoj, J. S. (2020). Effect of surface modification on characteristics of naturally woven coconut leaf sheath fabric as potential reinforcement of composites. **Springer Nature - Switzerland**. A. Khan et al. (eds.), *Biofibers and Biopolymers for Bio-composites: Synthesis, Characterization and Properties*, Vol. 18, pp. 285–294.
ISBN: 978-3-030-40300-3 / ISBN: 978-3-030-40301-0 (eBook)
<https://doi.org/10.1007/978-3-030-40301-0>
11. Divakaran Divya, **Suyambulingam Indran**, & Kurki Nagaraja Bharath (2020). Bamboo: A potential natural material for bio-composites, **Springer Nature - Switzerland**. M. Jawaid et al. (eds.), *Bamboo Fiber Composites: Processing, Properties and Applications, Composites Science and Technology*. pp. 15–37.
ISBN 978-981-15-8488-6 / ISBN 978-981-15-8489-3 (eBook)
https://doi.org/10.1007/978-981-15-8489-3_2
12. Semalaiappan Yamuna Devi, **Suyambulingam Indran**, & Divakaran Divya (2020). Futuristic prospects of bamboo fiber in textile and apparel industries: Fabrication and characterization, **Springer Nature - Switzerland**. M. Jawaid et al. (eds.), *Bamboo Fiber Composites: Processing, Properties and Applications, Composites Science and Technology*. pp. 15–37.
ISBN 978-981-15-8488-6 / ISBN 978-981-15-8489-3 (eBook)
https://doi.org/10.1007/978-981-15-8489-3_2

PATENT FILLED:

Reference Number	: 27734 (Indian Patent)
Application Number	: 202341059455 A
Country	: INDIA
Title/Remarks	: Development of Basalt, Kevlar fabric, MWCNT, and date Palm filler Bioepoxy composite for aircraft structures
Date of filing	: 05/09/2023
Publication Date	: 06/10/2023

ONLINE SEMINARS [WEBINARS] / FDP / INTERNATIONAL CONFERENCE / WORKSHOP ATTENDED

1. Attended Three-day faculty development programme entitled "Advanced Materials Characterisation Techniques" organized by Annai Vailankanni College of Engineering, Department of Mechanical Engineering, Kanyakumari, Tamil Nadu, India, from 01.03.2022 to 03.04.2022 everyday Evening 07 AM to 09 PM.

2. Attended seminar on "The Next Big Thing" organized by Faculty of Engineering, Science and Technology Research Institute (STRI) Building, KMUTNB, Thailand on 29.03.2022.
3. Participated in 12 Hours of Faculty Development Program on Product Design using Fusion 360 (Online LIVE FDP) conducted by ICT Academy on 19 Apr 2021 to 24 Apr 2021 everyday afternoon 2PM to 4PM .
4. Attended six-day faculty development programme entitled "Machine Tools Building, Finishing Processes and Export Management" organized by Karpagam Academy of Higher Education, Faculty of Engineering, Department of Mechanical Engineering and University Industry Interaction Centre from 19.04.2021 to 24.04.2021 everyday morning 10AM to 12PM .
5. Webinar on "Mathematical Models in Biomedical Applications", 3 June 2020, Rohini College of Engineering and Technology, Kanyakumari, Tamil Nadu.
6. International webinar on "Modern and Effective Methods in the Development of Natural Products", 10 June 2020, Organized by Nandha College of Pharmacy, Erode, Tamilnadu.
7. National webinar on "Use of Elsevier Tools in Research Workflow", 5 May 2020, University of Madras, Chennai, Tamilnadu.
8. National webinar on "Research Tools for Writing Scientific Articles", 4-6 May 2020, Rohini College of Engineering and Technology, Kanyakumari, Tamil Nadu.
9. Faculty development programme on "Your Research Visibility- Research Impacts and Matrics", 11-13 May 2020, Velalar College of Engineering and Technology, Erode, Tamil Nadu.
10. Webinar on "Sustainable Materials, IPR, Research Tools, Art of Writing Scientific Articles", 13-16 May 2020, Kamaraj College of Engineering and Technology, Tamil Nadu.
11. Published "Mechanical properties of laminated natural fibers reinforced composites for prosthesis application - a trial study", Proceedings of the International Conference on "Advances in Mechanical Engineering and Research - ICAMER 2019" held at Rohini College of Engineering and Technology, Kanyakumari-TN/INDIA, April 5-6, 2019.
12. Published "Design and analysis of modified three wheeler for handicapped people", Proceedings of the International Conference on "Advances in Mechanical Engineering and Research - ICAMER 2019" held at Rohini College of Engineering and Technology, Kanyakumari-TN/INDIA, April 5-6, 2019.
13. Published "Fabrication benchmarks for Modified three wheeler for Handicapped people", Proceedings of the International Conference on "Advances in Mechanical Engineering and Research - ICAMER 2019" held at Rohini College of Engineering and Technology, Kanyakumari-TN/INDIA, 5-6 April 2019.

14. Published "Prospects of plant fiber reinforced polymer composites for biodigester construction – a review", Proceedings of the International Conference on "Advances in Mechanical Engineering and Research - ICAMER 2019" held at Rohini College of Engineering and Technology, Kanyakumari-TN/INDIA, April 5-6, 2019.
15. Published "Characterization of tamarind fruit fibers (*Tamarindus Indica* L.) as potential alternate for man-made vitreous fibers in polymer composites", Proceedings of 8th International Conference on Advancements in Polymeric Materials (APM2017), February 11-13th at Centre for Scientific and Industrial Consultancy, IISc Bangalore, Page no 177, 2017.
16. Published "An investigation on the variation of mechanical and chemical properties of *Borassus Flabellifer* fruit fiber depends on its plantation environment", Proceedings of the International Conference on Advanced Innovations in Engineering and Technology – ICAIET 2017, Rohini College of Engineering and Technology, Kanyakumari-TN/INDIA, February 14-15, 2017.
17. Published "Mechanical characterization of *Cissus quadrangularis* root/glass fiber hybrid composites", Proceedings of the INDO-BRAZIL Bilateral International Conference on Advanced Materials and Manufacturing – ICAMM 2015 Cape Institute of Technology, Tirunelveli-TN/INDIA, March 27-28, 2015.
18. Published "Tribological behavior of carbon epoxy composite materials with SiC and graphite fillers – An investigation", Proceedings of the International Conference on "Innovative Research in Engineering and Technology ICIRET 2010" held at Park College of Engineering and Technology, Kaniyur, Coimbatore, Tamil Nadu on 13th August 2010.
19. Published "Comprehensive characterization and utilisation of novel industrial waste based cellulosic micro-fillers reinforced hybrid polymer composites", Proceedings of the International finearts and printing conference IFAPC 2023" held at DUBAI on February 02-03, 2023.
20. Published "Effect of Sodium Hydroxide Treatment on Mechanical Properties and Morphological Behaviour of *Fucreae selloa* K. Koch Peduncle Fiber Reinforced Polyester Composites for Future Applications", Proceedings of the International finearts and printing conference IFAPC 2023" held at DUBAI on February 02-03, 2023.
21. Published "Comprehensive characterization of biomass based microcrystalline cellulose and bio-plasticizers reinforced polylactic acid (PLA) based biofilm for futuristic application", Proceedings of the International finearts and printing conference IFAPC 2023" held at DUBAI on February 02-03, 2023.
22. Published "Characterization of novel cellulosic plant fiber from *Ficus Roxburghii* leaf for a potential polymeric composite reinforcement", Proceedings of the International finearts and printing conference IFAPC 2023" held at DUBAI on February 02-03, 2023.

NATIONAL CONFERENCE / FDP/ FDTP/ WORKSHOP ATTENDED

1. Participated in a one - week Faculty Development Training Programme (FDTP) on “Outcome Based Pedagogical Principles for Effective Teaching, Learning & Research” Organized by Technical Association of Rohini College of Engineering and Technology (TARCET), Rohini College of Engineering and Technology, Palkulam, Kanyakumari, from 12-18 January 2020.
2. Participated in an ISTE Kerala section and CSI Cochin chapter sponsored two-daye-Seminar on “STEPS 2 RESEARCH” organized by Department of Computer Science, Amal Jyothi College of Engineering, Kanjirapally on 19 and 20 September 2014
3. Participated in a two-day workshop on “Application of Genetic Algorithm Using MATLAB” organized by Research Centre, St. Xavier’s Catholic College of Engineering, Chunkankadai on 21 and 22 August 2014.
4. Attended a one - week AICTE Margdarshan Scheme, faculty development program - FDP on ‘OBE implementation towards accreditation’ organized by Kalasalingam Academy of Research and Education, Anand Nagar, Krishankoil from 08 to 14 December 2019.
5. Attended DRDO and CSIR sponsored two days’ Workshop on “Recent trends in natural composites and its hybrids for structural applications” held at Sri Venkateswara College of Engineering, Chennai on 25 and 26 September 2013.
6. Attended two-day workshop on “Composite Materials (curriculum based program)” at KPR Institute of Engineering and Technology, Arasur, Coimbatore, on 24 and 25 August 2012.
7. Attended one-day workshop on “Optimization and Artificial Intelligence Techniques in Composite Materials” at The Rajas Engineering College, Vadakkangulam, on 30 March 2012.
8. Published “Study and Tribological Analysis of Carbon Epoxy Composite Materials with particulate Fillers - An Investigation”, Proceedings of the National Conference on “Recent Trends in Manufacturing Technology RTMT - 2011” held at College of Engineering Guindy Campus, Anna University, Chennai, Tamil Nadu during 12 March 2011.
9. Published “Study and Tribological Analysis of Carbon Epoxy Composite Materials with SiC Fillers - An Investigation”, Proceedings of the two-day National Conference on “Advances in Manufacturing Systems” held at Karpagam University, Coimbatore-Tamil Nadu on 25 January 2011.

10. Published "Study and Tribological Analysis of Carbon Epoxy Composite Materials with Graphite Fillers – An Investigation", Proceedings of the two-day National Conference on "Advances in Manufacturing Systems" held at Karpagam University, Coimbatore, Tamil Nadu on 25 January 2011.
11. Presented the paper in National Level Technical Symposium MEGX'06 titled 'Vehicle Crash Analysis' at St. Xavier's catholic College of Engineering, Nagercoil, held on 02-02-2009.
12. Participated in the one-day seminar on "Energy Auditing and Energy Management in Domestic and Bulk Utilities" conducted on 10 February 2009 by ISTE Chapter TN 133.
13. Presented the paper in National seminar on New & Renewable Energy Sources titled "Solar Sorption Airconditioning" at Ponjesly College of Engineering, Alamparai, Nagercoil, held on 21-08-2008.
14. Presented the paper in National Level Technical Symposium Travail'08 titled 'NUCLEAR DEALS IN INDIA' held at NMC College, Marthandam, 29th September 2008.
15. Participated in the one-day seminar on "Renewable Energy – Energy for the Future" Conducted by Energy Club of St.Xavier's Catholic College of Engineering, Chunkankadai held on 18th August 2007.
16. Presented the paper in National Level Technical Symposium MEGX'06 titled 'SOLAR RGB DRIVERS' at St.Xavier's Catholic College of Engineering, Nagercoil, held on 15-09-2006.

RESOURCE PERSON FOR ONSITE SEMINARS

1. Resource Person for an International Workshop on "Research Methodology and Scientific Writing" organized by the IQAC Cell, Sacred Heart College (Autonomous), Thevara, Kerala, India, on 22nd August 2023.
2. Invited Speaker for an International Seminar on "Research Article writing -Tips and Tricks with Etools" Organized by Kamaraj College of Engineering and Technology, Virudhunagar, Madurai, Tamil Nadu, India, from 18th September 2022.

RESOURCE PERSON FOR ONLINE SEMINARS [WEBINARS] AND WORKSHOP

1. Resource Person for TEQIP sponsored two days workshop on "Recent trends in composite materials - RTCM- 2021 with a topic for presentation "Tips and Tricks for doing research on natural fiber and its characterization" organized by the Department

of Mechanical Engineering at Coimbatore Institute of Technology, Coimbatore, Tamil Nadu, India, on 15th & 16th of March 2023.

2. Resource Person for online webinar for UG students to encourage them in the field of polymer Composite research findings on 2nd March 2023. The title of my discussion was "Natural Fibers Extraction and Its composite Preparation: Learn Basics from Expert Experience" organized by University College of Engineering, Thodupuzha, Kerala, India.
3. Resource Person for five days online international faculty development program on "Recent Advances in Composite Materials (RACM-2023)," scheduled from 20 to 24 February 2023. The title of my discussion was "Recent Trends in Biowaste Utilization in Polymer Composite Industry," organized by National Institute of Technology Puducherry (NITPY), Karaikal, Union Territory of Puducherry, India.
4. Resource Person for Five Days International Level Faculty development program Series on "Recent Advancements In Composite Research And Development" organized by A.C.T. Academy, Coimbatore, Tamil Nadu between 30.01.23 and 03.02.23. The title of my Technical session discussion was entitled "Tips And Tricks For Doing Research With Natural Fiber And Its Characterization - An Expert Approach "
5. Participated in an ISTE Kerala section and CSI Cochin chapter sponsored two-daye-Seminar on "STEPS 2 RESEARCH" organized by Department of Computer Science, Amal Jyothi College of Engineering, Kanjirapally on 19th and 20th September 2014

RESOURCE PERSON FOR FACULTY DEVELOPMENT PROGRAMS

1. Resource Person for a Five-day Faculty Development Program (FDP) on Recent Trends in Composites (FDP RTC 2023) Organized by Alliance University - Central Campus, Chikkahadage Cross Chandapura-Anekal, Main Road, Bengaluru, Karnataka, India, from 2nd & 6th January 2023 through online mode. Keynote talk on "Recent Trends in Waste Utilization: Thriving towards Waste to Material Approach in Polymer Composite Industry" is decimated among research Scholars and Facultie
2. Resource Person for a two-day Faculty Development Training Program (FDTP) on "Hands-on training on e-Tools for Research, Publication and Patents" Organized by Dr. KB IPR Consultancy, Patent and Educational Services, Chennai, Tamil Nadu, India, on 3rd & 4th December 2022 through online mode.
3. Resource Person for a one-day Research Scholars and Faculty Development Program (FDP) on "Scientific Research Tricks: Modern tactics With E-Tools" Organized by Centre for Research and Development, Department of Mechanical Engineering, K.Ramakrishnan College of Technology, Trichy, Tamil Nadu, India on 12th March 2022 through online mode.
4. Resource Person for a One Week Short-Term Course on "Modern E-tools and Techniques

- for Research Article & Thesis Writing” Organized by Green Research Solutions and Services, Madurai, Tamil Nadu, India, on 3rd and 4th June 2022 through online mode.
5. Resource Person for a two-day Research Scholars and Faculty Skill Development Program (FSDP) on “Hands-on training on e-Tools for Research, Publication and Patents” Organized by Department Of Biochemistry, Kongunadu Arts And Science College, Coimbatore, Tamil Nadu, India, from 6th and 11th October 2022 through online mode.
 6. Resource Person for a two days Faculty Development Programme on “Tricks and tips for Research article & Thesis Writing using e-tools with Hands-on Training” organized by the Department of Mechanical Engineering at Rohini College of Engineering and Technology, Kanyakumari, Tamil Nadu, India, on 3rd & 4th of September 2021.
 7. Resource Person for a two-day Research Scholars and Faculty Skill Development Program (FSDP) on “Hands-on training on e-Tools for Research, Publication and Patents” Organized by Green Research Solutions and Services, Madurai, Tamil Nadu, India, on 4th and 5th December 2021 through online mode.

RESOURCE PERSON FOR NATIONAL INTERNATIONAL CONFERENCES

1. Keynote Speaker for the 2nd International Virtual Conference on “Refining & redefining the sustainability of textile industry –RRSTI’23 Organized by Kongunadu Arts and Science College, Coimbatore, Tamil Nadu, India, from 20th March 2023.
2. Keynote Speaker for an International Web Conference on Sustainable Materials and Innovative Technologies ‘ICSMIT 2022’ Organized by Kamaraj College of Engineering and Technology, Virudhunagar, Madurai, Tamil Nadu, India, from 18th & 19th March 2022.
3. Keynote Speaker for an AICTE Sponsored International Conference on Newer Engineering Concepts and Technology (ICONNECT 2K22) Organized by Center for Research and Development, K.Ramakrishnan College of Technology, Trichy, Tamil Nadu, India on 28th and 29th April 2022 through online mode.

TEACHING EXPERIENCE

Organization: Rohini College of Engineering & Technology, Kanyakumari, Tamil Nadu, India.

Position : Head and Associate Professor with Institution Research Director

Period : October 2016 to December 2021.

Organization: Loyola Institute of Technology and Science, Thovalai, Tamil Nadu, India.

Position : Assistant Professor, Department of Mechanical Engineering.

Period : July 2011 to December 2011.

Rejoined - August 2015 to September 2016.

RESEARCH EXPERIENCE

Organization: Natural Composites Research Group Lab, KMUTNB – Bangkok, Thailand.

Position : Research Scientist (Specialist 2)

Period : **January 2022 to Till Date.**

Organization: Anna University, Chennai, Tamil Nadu, India

Position : DST, Inspire Fellow -JRF

Period : January 2012 to July 2015.

NAAC / NBA ACCREDITATION EXPERIENCE

1. Worked as a head of the department and handled a team of 34 teaching and eight non-teaching faculties with 813 Mechanical engineering students in the year 2021.
2. Worked as IQAC coordinator from 2016-2021 at Rohini College of Engineering and Technology, Palkulam, Kanyakumari, Tamil Nadu, India.
3. Prepared NAAC Documents for Rohini College of Engineering and Technology, Palkulam, Kanyakumari, Tamil Nadu, India, and our institution were awarded NAAC A+ grade by the accreditation team.
4. In charge for Criteria 3 in NBA accreditation work.
5. Developed Two-wheeler and 4-wheeler model lab for students' easy understanding with Scrab.
6. Created RPTTEL (ROHINI - RPTTEL MECHANICAL ENGINEERING) - RPTTEL is an acronym for Rohini Programme on Technology Enhanced Learning, an initiative by RCET faculties to the Rural Student Community for creating Anna University course contents in engineering. With the help of faculties I have developed all the B.E-Mechanical Engineering Subjects lecture 492 videos unit-wise for students' easy understanding during COVID-19.

<https://www.youtube.com/@rohini-rpttelmechanicalengi1684/playlists>

PROGRAMS ORGANIZED:

Title	Date	Chief guest(s)	Role
One day workshop on Product development cycle	15 th February 2017	Er.N.Sunesh EDUCADD Learning Solutions - Nagercoil	Convener
One day Hands on training on NDT	27 th February 2017	Imaya NDT Solutions Tirunelveli	Convener
National Level technical Symposium -MACH -17	30 th March 2017	Dr.V.Satheesh Kumar Production Department NIT -Trichy	Convener
Auto fest -2017	31 st March 2017	Mr.A.Samson SI - Suseendram	Coordinator
National level technical workshop on 3D printing	11 th August 2017	Prof. S.Rajkumar Prof - AU - Tirunelveli	Convener
Spectra - 17 Seminar on 'Way to enter MNC'	7 th August 2017	Er.Muthukrishnan Senior Design Engineer Mercedes - Benz, Bangalore	Convener
Two day National level Technical workshop on KTM engine explore - Mr. Engine	5 th and 6 th January 2018	Dr.Bruse Rolphine Rose Prof - AU - Tirunelveli	Coordinator
Entrepreneurship Awareness Camp/Seminar	17 th January 2018	Er.S.Rathinam CED - Tamilnadu	Coordinator

One day seminar on Effective Internet searching	19 th January 2018	Er.N.Sunesh EDU CADD - Nagercoil	Coordinator
ISME Student chapter Inauguration and one day seminar on How to improve learning capability	22 nd January 2018	Er.K. Rajendran and Prof.A. Pasupathy ISME - Chennai	Coordinator
One day seminar on Advanced research in Materials Science -ARMS 18	5 th February 2018	Dr. V.Sambath Department of materials and metallurgy IIT - Madras	Convener
One Day Seminar on “ We ignite you through Motivational talk”	05 th March 2018	Prof. J.Jenix Rino Prof - AU - Chennai	Coordinator
Orientation Program & One Day seminar on “ Basic Concepts in Material Science”	02 nd August 2018	Dr.U.T.S. Pillai, Senior Scientist, CSIR- TVM	Coordinator
Seminar on “Way to enter MNC’s in Spectra -18	05 th September 2018	Er.J.Nishanth Joseph Team Lead Catterpillar India Pvt. Ltd Bangaluru	Coordinator
One Day Seminar on “Reverse Engineering techniques in the modern industry”	05 th September 2018	Dr.S.Raja Kumar Prof. and Head, Dept. of Mechanical Engg. AU - Tirunelveli	Coordinator
One Day Seminar on “Computer Aided Industrial design”	04 th October 2018	Dr.G.R. Jinu Professor, University College of Engineering, Nagercoil.	Coordinator

Motivational talk (Role of Engineers in their Family & Society) for Second Year	10 th December 2018	Prof. George Mary Aarthi, TRP-HEAD, RCET	Coordinator
Seminar on “Innovative techniques for Design of Automobiles & It’s Components”	14 th December 2018	Er. Sithick, Deputy General Manager, HARI CAD	Coordinator
One Day Seminar on “Entrepreneurship: A tool for Sustainable Economic Development”	17 th December 2018	Dr.S.Thamil Selvan General Manager Ranu Foods Pvt. Ltd. Tirunelveli.	Coordinator
One day workshop on “Thermal Power plant Piping - Design and Inspection tools”	03 rd January 2019	Er.Ajay Mahesh Inspection and Automation Devision, SMC Automation Pvt. Ltd., Cochin.	Convener
Two day National level technical workshop on Honda engine explore - Mr.Engine	4 th and 5 th January 2019	Er.D.Vel Murugan Senior Service Manager, Southern Honda, Nagercoil.	Convener
One day Seminar on “Industrial Applications of FEA software tools”	08 th January 2019	Er.T.Selvaraj, PTC-ATC Incharge, Trio-CADD, Nagercoil.	Coordinator
Two day National level technical workshop on Industry 4.0 in Association with SIEMENS -Chennai	10 and 11 th January 2019	Er. T. Raja Singh Siemens- Chennai	Convener
Two Hands-On training on NDT in OIL and Gas Piping	24 and 25 th January 2019	Er.B.Aravinth Training Head Er.Anoop Chandran QA/QC Manager Er. Adharsh Kumar Inspection Engineer ARMSTECH Engg. Pvt. Ltd., Cochin.	Coordinator

National Level Technical Symposium -MACH -19	01 st March 2019	Er.K.Seshagopalan GM,TVS, Madurai. Er.S.Tharun Kumar R&D Department TVS Srichakre Ltd., Madurai. Dr.P.Arul franco, Professor, University College of Engineering, Nagercoil.	Convener
International conference on Advances in Mechanical Engineering and Research - ICAMER 2019	5 th and 6 th April 2019	Dr. Andrii Khokhlenko Professor, Faculty of Engineering, Department of Automotive and Mechatronics, University of Bayreuth, Germany.	Convener
Two days FDP on Steps to do research with Origin Software - Hands On Training	8 th and 9 th April 2019	Dr.J.S.BINOJ, Associate Professor, Department of Mechanical Engineering, Sree Vidyanikethan Engineering College (Autonomous), Tirupati, Andhra Pradesh.	Convener
One Day National Level Technical Seminar on Advanced Research in Materials Science ARMS-19	10 th August 2019	Dr.S.S.Saravanakumar Prof.P.Senthamaraikannan Department of Mechanical engineering, Kamaraj College of Engineering and Technology, Virudhunagar	Convener
One-day Faculty Development Programme (FDP) on "How to write an effective Technical Article and Patent with Hands on Practice"	9 th September 2019	Dr. S.R.Devadasan - Prof./PSG, CBE Prof. M.V.Muthukumar - Researcher/PSG, CBE	Convener

National Level Technical Symposium -MACH -20	14 th March 2020	Er.S.Tharun Kumar R&D Department TVS Srichakre Ltd., Madurai.	Convener
International workshop on “Hybrid Composites for Railway Applications”.	18 th February 2022	Dr. Ozgur Seydibeyoglu, Professor, Izmir Katip Celebi University, Turkey and University of Maine, USA Dr. IR. TS. Lai Chin Wei, Deputy Vice Chancellor (Research & Innovation), University of Malaya, Malaysia Dr. Mrityunjay Doddamani, Assistant Professor, National Institute of Technology Karnataka (NITK), Surathkal Karnataka, India. Dr. Munish Kumar Gupta Professor, Opole University of Technology, Opole, Poland.	Co-Convener
International Symposium on Lightweight and Sustainable Polymeric Materials (LSPM'23)	17 th February 2023	Prof. Togay Ozbakkaloglu Texas state University, USA Prof. Mohammad Jawaid Universiti Putra Malaysia, Malaysia Prof. Sabu Thomas Mahatma Gandhi University, India Prof. Hom Dakkal University of Portsmouth, UK Prof. Vincenzo Fiore University of Palermo, Italy	Vice Chairman

UG / PG STUDENT'S PROJECTS

UG PROJECTS

TITLE	STUDENT NAME	YEAR
Design and modification of two wheeler steering mechanism for the physically challenged people	Aadithy Narayan A S, Akhil Govind A, Aswin S	2019
Design and manufacturing of scorpion kart for lower limb amputees	Ashish H Jinu Sam Alan John Punnoose Abhijith R	2019
Coconut/palm tree claiming machine for physically challenged people	Dinesh R, Aravinthaan A Jesu Rajan S, Saha A S	2018
Manufacturing of hybrid natural fiber reinforced composite artificial limb for below knee amputee	Satheesh M, Raju S, Ratheesh C, Yoousuf Mubees H N	2017
Manufacturing of flax fiber reinforced artificial limp socket	Harikrishnan T, Akash A Ananth S, Aravinth S	2016
Investigation of <i>borrasus fablifier</i> flower carbonized husk suitability for water purification	Loganathan N, Abishek W Abinesh G, Alenso K S	2011

PG DISSERTATIONS

Title	Student Name	Year
Evaluation of Thermal Properties of Fiber and Polyester Composites	Kumarraparaja A	2017
Development and Testing of Eco-Friendly Material Using Coconut Coir Fiber for Automotive Brake Pads	Edwin raj T	2017
Thermal Behaviour of E-Glass/Epoxy Aluminium Particulate Composite Pressure Vessel	Prabhu K	2018

LIST OF JOURNALS ACTING AS A REVIEWER

1. *Carbohydrate Polymers* – Elsevier
2. *Journal of Engineering Technological Research*
3. *Journal of Engineering Technology & Management Science*
4. *Journal of Industrial Textiles* - SAGE
5. *Journal of Reinforced Plastics and Composites* - SAGE
6. *Journal of Natural Fibers* - Taylor & Francis
7. *Sustainable Chemistry & Engineering* - American Chemical Society publication
8. *International Journal of Polymers and Environment* - Springer
9. *Wear* – Elsevier
10. *Polymer Composites* – Wiley
11. *Biomass Conversion and Biorefinery* – Springer
12. *Biocatalysis and Agricultural Biotechnology* - Elsevier
13. *Current Research in Green and Sustainable Chemistry* – Elsevier
14. *Heliyon* – Elsevier
15. *International Journal of Biological Macromolecules* – Elsevier
16. *Advances in Materials Science and Engineering* – Hindawi
17. *Heliyon* -Elsevier
18. *Waste and Biomass Valorization* - Springer
19. *Bioresource Technology Reports* – Elsevier
20. *Materials Chemistry and Physics* – Elsevier
21. *Journal of Bionic Engineering* – Springer
22. *Iranian Polymer Journal* – Springer
23. *Advanced Composites and Hybrid Materials* – Springer
24. *Journal of Polymer Research* – Springer
25. *Sustainable Materials and Technologies* – Elsevier
26. *Philippine Journal of Science*
27. *Journal of Nanoparticle Research* – Springer
28. *Materials Today Communications* – Elsevier
29. *Aircraft Engineering and Aerospace Technology* - Emerald
30. *Part D: Journal of Automobile Engineering* – SAGE
31. *ASEAN Engineering Journal* – UTM

LIST OF JOURNALS ACTING AS AN EDITORIAL BOARD MEMBER

1. Archives of Advanced Engineering Science (E-ISSN: 2972-4325)
<https://ojs.bonviewpress.com/index.php/AAES/ebm>
2. Journal of Fibers and Polymer Composites (E-ISSN : 2829-7687)
<https://journals.gesociety.org/index.php/jfpc/about/editorialTeam>

SUBJECTS HANDLED

- | | |
|----------------------------|--------------------------------------|
| 1. Engineering Graphics | 6. Finite Element Analysis |
| 2. Engineering Mechanics | 7. Dynamics of Machinery |
| 3. Kinematics of Machinery | 8. Design of Machine Elements |
| 4. Strength of Materials | 9. Power Plant Engineering |
| 5. Mechatronics | 10. Unconventional Machining Process |

STUDENTS RESEARCH ACTIVITY YOUTUBE VIDEO LINK

https://www.youtube.com/watch?v=VVvYc_f5jbw&t=10s

PROJECTS UNDER PROGRESS FOR INDIAN PATENT FILLING

1. A New Innovation for the Benefit of Farmers “Monkey Air Gun”
2. Innovative Product for Coconut/Palm Tree Claiming Machine
3. Design and Manufacturing of Novel bio-fiber reinforced artificial limb

EXPERIENCE IN COORDINATING PROGRAM/CENTER/EVENT/COURSE

1. TARCET - Technical Association of Rohini College of Engineering and Technology.
2. RGAME - Rohini GATE academy for Mechanical Engineering Students.
3. Virtual Lab - IIT Kanpur Rohini College - Nodal center Coordinator.
4. Coordinator of Unnat Bharat Abhiyan (UBA) Project - IIT Delhi - working for 5 rural area development with appropriate technology.
5. Rohini Research Center Director from 2019-2021.

PROFESSIONAL MEMBERSHIP

3. Life Member of the Indian Society for Technical Education (ISTE) - LM 131874
4. Associate Member of the International Association of Engineers (IAENG) - 294116
5. Member of the Indian Society of Mechanical Engineers (ISME)
6. Member of the Society of Automotive Engineers – (SAE), India -7230410342

PERSONAL INFORMATION

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Research Gate:

https://www.researchgate.net/profile/Indran_S

Declaration:

I hereby declare that the above-mentioned information is true to my knowledge and I accept the responsibility for the aforementioned details.



Indran Suyambulingam