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Present Position

Associate professor, Department of Production Technology, , Anna University, Chennai from November-2014.

Present Additional Responsibility

- Head of the Department, Department of Production Technology, Anna University, Chennai from March-2021.
- Professor Workshop Superintendent, Workshop-MIT, Anna University, Chennai from November-2019.

Previous Positions

- Associate professor, Department of Production Technology, Madras Institute of Technology, Anna University, Chennai during November-2014 and June-2016.
- Assistant Professor, Department of Mechanical Engineering, College of Engineering Guindy, Anna University, Chennai during July-2010 and November-2014.
- Lecturer, Department of Mechanical Engineering, College of Engineering Guindy, Anna University, Chennai during September-2006 and June-2010.

Previous Additional Responsibility

- , , Anna University, Chennai.
- , , Anna University, Chennai.

Other Employment

- Lecturer, National Institute of Technology and Science(KCG college of Engg. & Te for 1 year.

Degree

- ❖ M.E. in PRODUCTION ENGINEERING , COLLEGE OF ENGINEERING , ANNA UNIVERSITY (1999 - 2001).

- ❖ B.E. in MECHANICAL ENGINEERING , REGIONAL INSTITUTE OF TECHNOLOGY (N.I.T) JAMSHEDPUR, RANCHI UNIVERSITY (1994 - 1998).

Research Degree

- ❖ Ph.D. in BIOMATERIALS from Faculty of METALLURGICAL ENGINEERING, INDIAN INSTITUTE OF TECHNOLOGY MADRAS, INDIAN INSTITUTE OF TECHNOLOGY MADRAS (2002 - 2009).
Title: Microwave Processing of Nanocrystalline Calcium Deficient Hydroxyapatite, Enriched with Ions and its coating for Implant Applications .

Area of Specialisation

- Microwave Processing of Materials
- Surface Engineering
- Materials characterisations and Testing
- MATERIAL PROCESSING
- BIOMATERIALS
- NANOSTRUCTURED MATERIALS

Membership in Professional Organization

- Society of Biomaterials and Artificial Organs (India)
- Indian Institute of Metals (India)
- Materials Research Society of India

Research Guidance

Number of Ph.D Scholars Guided	: 2
Number of Ph.D Scholars Guiding	: 5
Number of M.E./ M.Tech. Projects Guided	: 6
Number of Ph.D Scholars Guiding as Joint-Supervisor	: 3

Papers Published in Journals

Research Papers Published in International Journals	: 26
Research Papers Published in National Journals	: 3

1. A. Raja, A.Siddharthan, K.L. Rohira, "Influence of preheat temperature on stellite flux cored hardfacing deposit", WRI Journal, published by WRI-BHEL, Trichy. Vol. 22, pp. 14-17 (2001).
2. A.Siddharthan, T.S.Sampath Kumar and S.K.Seshadri, "Microwave accelerated synthesis of nanosized calcium deficient hydroxyapatite", J. Mat. Sci. Materials in Medicine, published by Springer. Vol. 15, pp. 1279-1285 (2004).
3. A. Siddharthan, S. K. Seshadri and T. S. Sampath Kumar, "Rapid Synthesis of Calcium Deficient Hydroxyapatite Nanoparticles by Microwave Irradiation", Trends in Biomaterial & Artificial Organs , published by Society For Biomaterials And Artificial Organs – I. Vol. 18, pp. 110-113 (2005).
4. A.Siddharthan, T.S.Sampath Kumar and S.K.Seshadri, "Influence of microwave power on nanosized hydroxyapatite particles", Scripta Materialia, published by Elsevier. Vol. 55, pp. 175-178 (2005).
5. A. Siddharthan, S. K. Seshadri and T. S. Sampath Kumar, "Effect of magnetic field on biomimetic coating of hydroxyapatite on titanium", Trends in Biomaterial & Artificial Organs , published by Society For Biomaterials And Artificial Organs – I. Vol. 20, pp. 11-14 (2006).
6. D. Siva Rama Krishna, A. Siddharthan, S.K. Seshadri & T. S. Sampath Kumar, "Nanocrystalline Hydroxyapatite from Eggshell Waste by Microwave Processing and its Sintering Studies", J. Mat. Sci. Materials in Medicine, published by Springer. Vol. 18, pp. 1735-1743 (2006).
7. A.Siddharthan, T.S. Sampath Kumar and S.K.Seshadri, "Bioceramics coating on Ti-6Al-4V alloy by microwave processing", Surface Engineering, published by Maney . Vol. 23, pp. 401- 405 (2007).
8. A.Siddharthan, T.S. Sampath Kumar and S.K.Seshadri, " In-situ Composite Coating of Titania-Hydroxyapatite on Commercially Pure Titanium by Microwave Processing", Surface & Coating Technology , published by Elsevier. Vol. 204, pp. 1755-1763 (2009).
9. A.Siddharthan, T.S. Sampath Kumar and S.K.Seshadri, " Synthesis and characterisation of nanocrystalline apatites from eggshells at different Ca/P ratios", Biomedical Materials, published by IOP. Issue 414, pp. 045010 (2010).
10. 2, "Theoretical and Experimental Analysis of a Vibration Isolation System Using Hybrid Magnet", Procedia Engineering , published by Elsevier. Vol. 64, pp. 1139-1146 (2013).
11. 2, "CHARACTERIZATION OF ELECTROLESS NICKEL PHOSPHORUS NYLON 66 COMPOSITE COATING ON LOW CARBON STEEL", ADVANCED MATERIALS RESEARCH, published by TRANS TECH PUBLICATIONS LTD. Vol. 984, pp. 502-507 (2014).
12. 4, "CHARACTERIZATION OF MECHANO-CHEMICAL SYNTHESIZED CU-AL-MN SHAPE MEMORY ALLOY POWDERS AND SPARK PLASMA SINTERED COMPACTS", INTERNATIONAL JOURNAL OF CHEMTECH RESEARCH, published by SPHINX KNOWLEDGE HOUSE. Vol. 6, pp. 1715-1717 (2014).

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13. 7, "EGGSHELL DERIVED HYDROXYAPATITE AS BONE GRAFT SUBSTITUTE IN THE HEALING OF MAXILLARY CYSTIC BONE DEFECTS: A PRELIMINARY REPORT", JOURNAL OF INTERNATIONAL ORAL HEALTH, published by MEDKNOW PUBLICATIONS. Vol. 6, pp. 15-19 (2014).
 14. 5, "COMPARISON OF IN SITU AND EX SITU REDUCED GRAPHENE OXIDE REINFORCED ELECTROLESS NICKEL PHOSPHORUS NANOCOMPOSITE COATING", APPLIED SURFACE SCIENCE, published by Elsevier. Vol. 320, pp. 171-176 (2014).
 15. 5, "PROPERTY ENHANCEMENT OF TRANSFORMER OIL WITH SUSPENSION OF TiO₂ NANOPARTICLES", JOURNAL OF NANOFUIDS, published by 340. Vol. 3, pp. 336 (2014).
 16. 4, "3-D POROUS METAL STRUCTURE PREPARATION BY A TEMPLATE METHOD OF ELECTROLESS PLATING PROCESS FOR THE APPLICATION OF EXHAUST FILTER", INTERNATIONAL JOURNAL OF CHEMTECH RESEARCH, published by SPHINX KNOWLEDGE HOUSE. Vol. 8, pp. 430-435 (2015).
 17. 3, "EXPERIMENTAL STUDY ON QUARTER CAR MODEL USING THE COMBINATION OF MR FLUID DAMPER AND HYBRID MAGNET", INTERNATIONAL JOURNAL OF APPLIED ENGINEERING RESEARCH, published by RESEARCH INDIA PUBLICATIONS. Vol. 10, pp. 6363-6366 (2015).
 18. 3, "ENHANCEMENT AND INVESTIGATION OF MECHANICAL PROPERTY OF ELECTROSPUN MAT PREPARED USING CDC", INTERNATIONAL JOURNAL OF APPLIED ENGINEERING RESEARCH, published by RESEARCH INDIA PUBLICATIONS. Vol. 10, pp. 6320-6325 (2015).
 19. 5, "EGGSHELL-DERIVED HYDROXYAPATITE: A NEW ERA IN BONE REGENERATION", JOURNAL OF CRANIOFACIAL SURGERY, published by LIPPINCOTT WILLIAMS. Vol. 27, pp. 112-117 (2016).
 20. 5, "ANALYSIS OF THE INHOMOGENEITY OF AN ELECTROSPUN MAT PRODUCED USING STATIC AND DYNAMIC COLLECTORS OF DIFFERENT TEMPLATE DESIGN, INCLUDING ITS MITIGATION", FIBRES AND TEXTILES IN EASTERN EUROPE, published by INSTITUTE OF BIOPOLYMERS AND CHEMICAL FIBERS. Vol. 123, pp. 53-61 (2017).
 21. 3, "Experimental analysis of vibration isolation using hybrid magnet and magnetorheological fluid damper", Journal of the Brazilian Society of Mechanical Sciences and Engineering, published by Springer. Vol. 40, pp. 367 (2018).
 22. 3, "SPIROGRAPH BASED ELECTROSPINNING SYSTEM FOR PRODUCING FIBRE MAT WITH NEAR UNIFORM MECHANICAL PROPERTY", Indian Journal of Fibre & Textile Research, published by CSIR-NISCAIR. Vol. 44, pp. 279-285 (2019).
 23. 8, " ENHANCED PERFORMANCE OF ALOE VERA INCORPORATED CHITOSAN POLYETHYLENE OXIDE ELECTROSPUN WOUND SCAFFOLD PRODUCED USING NOVEL SPIROGRAPH BASED COLLECTOR ASSEMBLY", International Journal of Biological Macromolecules, published by ELSEVIER . Vol. 140, Issue 1, pp. 808-824 (2019).
 24. 3, "INFLUENCE OF MAGNETIC FIELD STRENGTH OF HYBRID MAGNET ON VIBRATION ISOLATION OF QUARTER CAR MODEL", JOURNAL OF VIBROENGINEERING, published by JVE International. Vol. 21, Issue 5, pp. 1405-1413 (2019).

25. 4, "Influence of amine-functionalised graphene oxide filler on mechanical and insulating property of epoxy nanocomposites", Materials Research Express, published by IOP Science. Vol. 6, Issue 9, pp. 095302 (2019).
26. 4, " Heat tolerant epoxy-amine functionalized graphene oxide composites for insulation applications", Journal of Adhesion Science and Technology, published by Taylor & Francis . Vol. 34, Issue 16, pp. 1774-1795 (2020).
27. 3, " Investigation on the distribution and concentration of nylon 6,6 particles on the wear behaviour of electroless nickel phosphorus nylon composite coating", Journal of the Balkan Tribological Association, published by Scientific Bulgarian Communications. Vol. 26, Issue 1, pp. 110-122 (2020).
28. "Novel Acrylate based Polymer for Contact Lens Application", Trends in Biomaterials & Artificial Organs, published by SBAOI . Vol. 35, Issue 2, pp. 144-147 (2021).
29. Madavan P, Siddharthan A, "Influence of fibre alignments on the mechanical properties of novel Spirograph based non-woven mat composites", Journal of Reinforced Plastics and Composites, published by Sage. (2021).

Papers Presented in Programmes

Research Papers Presented in International Programmes : 0
Research Papers Presented in National Programmes : 1

1. , India .

Books Published

1. "PROCEEDING OF INTERNATIONAL CONFERENCE ON RECENT INNOVATIONS IN PRODUCTION ENGINEERING (RIPE 2017)" - 2147483647th edition authored by R KESAVAN , R KESAVAN and G B BHASKAR and published by EXCEL INDIA PUBLISHER, New Delhi.(2017)

Current Sponsored Projects

1. "SPIROGRAPH BASED NONWOVEN FIBRE MAT REINFORCED POLYMER COMPOSITE FABRICATION WITH NEAR ISOTROPIC MECHANICAL PROPERTY" (June-2017 - June-2020). Project Cost: 47.00.
2. "EVALUATION OF MECHANICAL PROPERTY OF INJECTION MOULDED INORGANIC REINFORCED POLYMER COMPOSITE BONE SCREW WITH BIORESORPTION: EFFECT OF VOLUME FRACTION" (March-2017 - March-2020). Project Cost: 54.00.

Programme Chaired

1. Co Chairman, International level conference titled "Second International Conference on Materials Processing and Characterization" conducted by Department of Mechanical Engineering Anna University from 06-Feb-2013 to 07-Feb-2013.
2. National level conference titled "Recent Trends in Manufacturing Technology" conducted by Department of Manufacturing Engineering Anna University from 25-Apr-2013 to 26-Apr-2013.

Programme Organized

1. Faculty Coordinator, National level workshop on "Automotive Materials " from 22-Mar-2012 to 22-Feb-2012.
2. Faculty Coordinator, National level workshop on "Surface Engineering" from 17-Oct-2012 to 17-Oct-2012.
3. Co-Coordinator , International level workshop on "Advanced Materials Engineering & Technology" from 06-Feb-2013 to 07-Feb-2013.
4. Assistant Secretary, , International level conference on "Second International Conference on Materials Processing and Characterization" from 06-Feb-2013 to 07-Feb-2013.
5. Faculty Coordinator, National level workshop on "Alternative Energy in the perspective of Nanotechnology" from 13-Apr-2013 to 13-Apr-2013.
6. Coordinator, International level conference on "RECENT INNOVATIONS IN PRODUCTION ENGINEERING 2017" from 24-Mar-2017 to 25-Mar-2017.
7. Joint Secretary, International level conference on " 7th International and 28th All India Manufacturing Technology, Design And Research Conference 2018" from 13-Dec-2018 to 15-Dec-2018.

Honours

1. "SUDHARSHAN BHAT MEMORIAL PRIZE" given by INDIAN INSTITUTE OF TECHNOLOGY MADRAS from INDIA.

Patents

1. Having a patent for "A composition containing nanophase calcium deficient hydroxyapatite with Mg, Sr and Si synthesized f" awarded by India. Patent number:232313 (16-Mar-2009).

Patents Filed

1. Filed patent rights for SPIROGRAPH BASED MECHANICAL ASSEMBLY FOR FABRICATIin INDIA. File number: 5603 Filed Date: 21-Nov-2014.

Experience Abroad

1. Visited NUS , SINGAPORE from 03-Jul-2005 to 08-Jul-2005. Purpose of visit :IIT MADRAS PAPER PRESENTATION IN THIRD ICMAT.
2. Visited INDO GERMAN FRONTIERS OF ENGINEERING, GERMANY from 23-Jun-2010 to 28-Jun-2010. Purpose of visit :POSTER PRESENTATION IN INDO GERMAN FRONTIERS OF ENGINEERING.

Invited Lectures

1. Delivered a Lecture on "Biomimetic Approach for Bone Regeneration" in INDO-JAPAN workshop on RECENT TRENDS IN MATERIALS AND DEVICES organized by Anna University, Chennai (05-Sep-2011).
2. Delivered a Lecture on "Microwave Processing of Materials" in Engineering Materials and Manufacturing Processes ~2013 organized by NIT Trichy, Trichy (21-Dec-2012).