

CURRICULUM VITAE



Dr. EDWARD ANAND.E

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Citations : 73, h-index: 5, i10-index-3

PROFESSIONAL EXPERIENCE

Total: 19 yrs 4 months

- **Co ordinator-R&D Cell**
EGS Pillay Engineering College, Nagapattinam
Jan 2021- till date
- **Professor & Head / Physics, Department of Science & Humanities**, EGS Pillay Engineering College, Nagapattinam.
June 2016 – Nov 2020
- **Associate Professor / Physics, Department of Science & Humanities** M.Kumarasamy College of Engineering (Autonomous), Karur,
Aug 2015 – May 2016
- **HTRA Fellow, Department of Metallurgical & Materials Engineering**, National Institute of Technology, Tiruchirapalli.
Aug 2011 - June 2015
- **Assistant Professor / Physics, Department of Science & Humanities**, EGS Pillay Engineering College, Nagapattinam.
Jan 2010 – Jul 2011
- **Assistant Professor / Physics, Department of Science & Humanities**, Bharathiyar College of Engineering. & Technology, Karaikal,
Sep 2000 – Dec 2009

PROFESSIONAL SKILLS

- Possess solid working knowledge towards NBA accreditation and related files preparation
 - Experience in Central Govt. purchase procedures and documentation towards setting up of R&D labs
 - Well versed in NAAC and ISO related files preparation and accreditation process
 - Administrative experience as Head of the department and executing the academic activities pertaining to staff and students
 - Experience in writing project proposals to various Govt. agencies like SERB, AICTE, ISTE etc.
 - Chairman-Board of studies for Science & Humanities – curriculum design, development & Implementation
 - Arranging In-plant training, internships and Placement for students in reputed multinational companies both in core and IT and ITES sectors.
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EDUCATION

Ph.D. - Metallurgical & Materials Engineering (2011-2015) - **Highly Commended**

NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPALLI

M.Tech. - Materials Engineering (1997-1999) - **First Class with Distinction.**

NATIONAL INSTITUTE OF TECHNOLOGY, KARNATAKA, MANGALORE UNIVERSITY

M.Sc. - Materials Science & Technology (1994-1996) – **First Class.**

PONDICHERRY ENGINEERING COLLEGE, PONDICHERRY UNIVERSITY

B.Sc. - Physics (1991-1994) – **First Class.**

ARIGNAR ANNA GOVT, ARTS COLLEGE, PONDICHERRY UNIVERSITY

HSC (1991) - **74.33%**

CAMPION HIGHER SECONDARY SCHOOL, TIRUCHIRAPALLI

SSLC (1989) – **80.4%**

St. MARY'S HIGH SCHOOL, KARAIKAL

RESEARCH EXPERIENCE

Research Scholar at NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPALLI.

- Handled B.Tech, M.Tech theory / laboratory courses and guided them in projects.
- Hands on experience in operating processing equipments like lathe, grinding, milling, electroplating and high temperature furnaces.
- Had the golden opportunity to exhibit my expertise through handling of equipments such as Multichannel Potentiostat, Water and air jet erosion, Vacuum Tribometer, Microhardness, Pulse Rectifier, X-Ray Diffractometer, Scanning Electron Microscope and EDAX.
- Possess solid understanding of usefulness of computer based tools for testing / exploring electrochemical corrosion, erosion, wear and microstructures of new materials.
- Organised National level conferences and Colloquium for industry personnel and Research Scholars

Project Fellow at VIKRAM SARABHAI SPACE CENTRE, ISRO, TRIVANDRUM.

- Handled individually processing equipments for composites and nanomaterials.
- Hands on expertise in preparation and characterization of Nanomaterials through Powder metallurgy, Heat treatments, Composite materials, Optical, Scanning electron microscopy and image analysis.
- Hands on experience in various Metallographic Microscopes, Scanning electron microscope, X-ray diffractometer, Thermocouples and Furnaces.
- Established processing parameters for Nano crystalline Ferromagnetic materials prepared through Melt spinning technique, first of its kind prepared in India with the help of National Metallurgical Laboratory, CSIR, GOI, Jamshedpur.

In-plant training at FOUNDRY & FORGE DIVISION, HAL, BANGALORE.

- Worked on strain hardening exponents of various Al alloys for aircraft applications.
- Hands on experience in operating various materials processing equipments.
- Hands on experience in mould, pattern making and gating methods in foundry labs.
- Possess knowledge on operating forging, milling and blanking machines.

PUBLICATIONS

Technical articles in Refereed International Journals

1. **Edward Anand.E**, S.Natarajan, 'Preparation and Characterization of Nanocrystalline Cobalt-Phosphorus Coatings Reinforced with Carbon Nanotubes', ***Surface Engineering***, 30 (10), 2014, 716-721. **Taylor & Francis (SCI Indexed)**
2. **Edward Anand.E**, S.Natarajan, 'Effect of Carbon Nanotubes on Corrosion and Tribological Properties of Pulse Electrodeposited Co-W Composite Coatings', ***Journal of Materials Engineering and Performance***, 24(1), 2015, 128-135. **ASM International, Springer (SCI Indexed)**
3. **Edward Anand.E**, S.Natarajan, 'Strengthening mechanisms in multiwalled carbon nanotubes reinforced Co-W electrodeposits', ***Materials & Manufacturing Processes***, 31(1), 2016, 48-52. **Taylor & Francis (SCI Indexed)**

4. **Edward Anand, E** and S.Natarajan, 'Influence of Carbon Nano-tube addition on Sliding Wear Behavior of Pulse Electrodeposited Cobalt (Co)-Phosphorus (P) Coatings' *Applied Physics A*, 120 (4), 2015, 1653-1658. **Springer (SCI Indexed)**
5. S. Natarajan, **E. Edward Anand**, Akhilesh K. S, Ananya Rajagopal, Preeti P. Nambiar, 'Effect of graphite addition on the Microstructure, Hardness and Abrasive Wear behavior of Plasma sprayed NiCrBSi coatings. *Materials Chemistry & Physics* 175, 2016, 100-106. **Elsevier (SCI Indexed)**
6. **E.Edward Anand**, S.Natarajan, High-temperature erosion behaviour of plasma sprayed NiCrBSi-graphite coatings, *Surface Engineering*, 34(10), 2018, 783-790. **Taylor & Francis (SCI Indexed)**
7. M. Irshad Ahamed, K. S. Kumar, **E. Edward Anand**, A. Sivaranjani, 'Optical Attenuation Modelling Of Pbsexs1-X Quantum Dots With Vegard's Law And Brus Equation Use' *Journal of Ovonic Research*, 16(4), 2020, 245-252. **(SCIE Indexed)**
8. **E Edward Anand**, K Balasubramanian, 'Influence of Ni addition on Abrasive wear behaviour of plasma-sprayed Duplex stainless steel coatings' *Turkish journal of Physics*, (accepted article) **(Scopus Indexed)**
9. **Edward Anand.E**, C. Gopi, N.Moorthy, J.Prince Richard, 'On the Corrosion behavior of 4A and 5A cast duplex stainless steel under different heat treatment conditions' *Turkish journal of Physics*, (accepted article) **(Scopus Indexed)**
10. **Edward Anand.E**, S.Ponsadailakshmi, 'Microstructure, Corrosion and Wear behaviour of CrMnFeCoNi high entropy alloy coating by cold spray process' *Surface Engineering* (Communicated) **Taylor & Francis (SCI Indexed)**

Paper presentations in International Conferences

1. **Edward Anand.E**, S.Natarajan, 'Effect of Carbon Nanotubes Addition on the Corrosion Behavior of Pulse Electrodeposited Nanocrystalline Co-W Coatings', International conference on Electrochemical Science & Technology (ICONEST-2014) 7-9th, August 2014 at IISc, Bangalore.
2. **Edward Anand.E**, P.P.Sinha, 'Consolidation Characteristics of Fe-Ni and Fe-Ni-Cu Nanocrystalline Soft Magnetic Ribbons', International Conference on Advances in Engineering and Technology, (ICAET-2011), May 27-28, 2011 at EGS Pillay Engineering College, Nagapattinam. Tamilnadu.

3. **Edward Anand.E**, 'Study of Electroless Ni-P Plating on Stainless Steel' International Conference on Advances in Engineering and Technology, (ICAET-2011), May 27-28, 2011 at EGS Pillay Engineering College, Nagapattinam. Tamilnadu.

Paper presentations in National Conferences

1. **Edward Anand E**, S.Natarajan, R.K.Suraj, S.Soundarya, S.Pradeep Balan, Studies On Electrochemical And High Temperature Oxidation Behaviour Of Plasma-Sprayed Coatings On Stainless Steel, 17th National Congress on Corrosion Control, CSIR-Central Electrochemical Research Institute, Karaikudi, 21 - 23 August 2014.
2. M.Yaswanth, Mathan Kumaran.V, L.Vairavan Gowtham, S.Natarajan, **E.Edward Anand**, Adam Khan M, 'Evaluation of mechanical properties of basalt fiber reinforced metal laminates', National Conference on Corrosion, Surface Engineering & Tribology (CST2013), National Institute of Technology, Tiruchirapalli, Tamilnadu, 22 – 23 April 2013.
3. M. Adam Khan, S. Sundarrajan, S. Natarajan, **E. Edward Anand**, Hot Corrosion behaviour of Super 304H under marine environment with Na₂SO₄ / NaCl / V₂O₅ salt mixture, National Conference on Corrosion, Surface Engineering & Tribology (CST2013), National Institute of Technology, Tiruchirapalli, Tamilnadu, 22 – 23 April 2013.

TECHNICAL EXPOSURE IN RENOWNED R&D LABS OF THE COUNTRY

PROJECTS CARRIED OUT

- **Ph.D.** : Corrosion and Tribological Studies on Pulse Electrodeposited Cobalt based Coatings Reinforced with Carbon Nanotubes, **NIT, Tiruchirapalli**.
- **M.Tech.** : Compaction and Consolidation Characteristics of Fe-Ni-Cu based Nanocrystalline soft magnetic materials, **Vikram Sarabhai Space Centre, ISRO, Trivandrum**.
- **M.Tech.** : Role of strain hardening exponents in Aluminium alloys, **Foundry & Forge Division, HAL, Bangalore**.
- **M.Sc.** : Effect of Temperature on Mechanical properties of Fiber Composites. **Vikram Sarabhai Space Centre, ISRO, Trivandrum**.

PROFESSIONAL ACITIVITIES/MEMBERSHIPS

- Life Member of Indian Society for Technical Education. New Delhi.
- Life Member of Indian Institute of Metals. Trichy Chapter, India.
- Certified Internal Quality Auditor for ISO 9000:2000E by RWTUV, Germany.

Invited lectures delivered

- “Corrosion Management”, 23rd September 2011, EGS Pillay Engg. College, Nagapattinam.
- “Science & Engineering of Materials”, 26th September 2012, SNS College of Engineering, Coimbatore.
- Materials Characterization Techniques, 12th February 2017, Govt. College of Technology, Coimbatore

AWARDS /RECOGNITIONS RECEIVED

- Outstanding reviewer certificate from Taylor & Francis, USA and Elsevier, Netherlands in 2015 and 2016
- Outstanding faculty award from VGood Professional association in the year 2020
- Presently serving as Technical reviewer in the following International Journals

Journal	Publisher	Impact factor
Journal of Materials Research	Materials Research Society, USA. Cambridge Univ. Press	1.815
Surface Engineering	Taylor & Francis, United Kingdom	1.197
Materials and Manufacturing Processes	Taylor & Francis, United Kingdom	1.51
Materials Chemistry & Physics	Elsevier Publications, The Netherlands	2.259
Progress in Natural Science: Materials International	Elsevier Publications, The Netherlands	1.873
Journal of Alloys and Compounds	Elsevier Publications, The Netherlands	3.014
Medžiagotyra (Materials Science)	KTU, Lithuania	0.428
Emerging Materials Research	ICE Publishing, United Kingdom	0.413

PERSONAL DETAILS

Date of Birth : 10/12/1973
Marital Status : Married
Languages Known : English, Tamil, Malayalam and French
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REFERENCES

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