SURESH, G.
Nationality - INDIAN

Assistant Professor
Department of Physics
Park College of Engineering & Technology
Coimbatore-641 659, Tamil Nadu, INDIA.
sureshvgr@gmail.com
sureshvgovindarajan@gmail.com
+91 98940 70001
+91 8124 220 270

Educational Credentials

Doctor of Philosophy (Physics) at *Vellore Institute of Technology (VIT) University, Vellore-632014, Tamil Nadu, India* during July 2007 - Sep 2011.

Ph.D. Thesis Title

"Investigations on Synthesis, Structural and Magnetic Properties of Fe-Co Alloy Nanoparticles and Sm-Co-C Nanocomposite"

Master Degree (Physics) at *A.V.V.M Sri Pushpam College, (Autonomous-Affiliated to Bharathidasan University, Tiruchirappalli, India) Poondi-613105, Tamil Nadu, India*, with a cumulative record of 69.6 %, during 2003-2005.

Bachelor Degree (Physics) at *A.V.C. College, (Autonomous-Affiliated to Bharathidasan University, Tiruchirappalli, India) Mayiladuturai-609305, Tamil Nadu, India*, with a cumulative record of 76.2 %, during 2000-2003.

Peer-Reviewed Publications

6. S.V. Vijayasundaram, A. Sankar, S. Ambalatharasu, R. Kanagadurai, **G. Suresh.** *Size-dependent anamolous multiferroic properties of $BiFeO_3$ nanoparticles*, ***J. Appl. Phys.*** **(To be submitted)**

5. S. Jayakumar, T.K. Thiyagarajan, P.V. Ananthapadmanabhan, K. Perumal, S.C. Mishra, A.I.Y. Tok, **G. Suresh**. *Transmission electron microscopy studies on nanocrystalline zirconia synthesized by plasma processing*, ***Mat. Chem. Phys.*** **(To be submitted)**

4. **G. Suresh**, P. Saravanan, D. Rajan Babu. *Effect of annealing on phase composition, structural and magnetic properties of Sm-Co based nanomagnetic material synthesized by sol-gel process*, ***J. Magn. Magn. Mater.*** (2012) Vol. **324** (2012) pp. 2158-2162.

3. **G. Suresh**, D. Rajan Babu. *A simple wet-chemical approach to synthesize shape controlled high magnetic moment Fe_{71}-Co_{29} nanocrystals*, ***J. Alloys Compd.*** Vol. **509** (2011) pp. 10145-10149.

2. **G. Suresh**, P. Saravanan, D. Rajan Babu. *Synthesis of Fe-Co nanobars using sodium sulfite assisted polyol process and their structural, magnetic studies*, ***J Nano Res-SW*** Vol. **15** (2011) pp. 21-28.

1. **G. Suresh**, P. Saravanan, D. Rajan Babu. *One-pot synthesis of Fe-Co nanospheres by modified polyol process and their structural, magnetic studies*, ***J. Phys.:Conf. Ser.,*** Vol. **292** (2011) pp. 012015 (5 pages).

Fellowship awarded

- ***Research Associateship (RA)*** from 12th Feb 2008 to 30th June 2011 awarded by VIT University, Vellore-632 014, India for pursuing **Ph.D.** degree.

Research Interests

- *Synthesis* of metals, metal oxides, alloys, carbides and manganite nanoparticles.
- Characterizations of *Physical properties* at extreme conditions.
- *Rietveld refinement*.
- Development of nanostructured *Bulk hard magnets*.

Research Experience

- Strong expertise in the synthesis of various nanoparticles using wet-chemical approaches.
- Knowledge in surfactant chemistry.

Current Research Work

- Synthesizing and studying novel oxide multiferroic materials for spintronics applications

Professional Body Affiliation

- Magnetics Society of India (MSI) - Life member (LM-500)

Guest Lecture

"Phase dependent magnetic properties of Hard/Soft magnetic Nanoparticles" on 19-August-2011 at Materials Science Group, IGCAR, Kalpakkam- 603102, India.

Publications in National & International Conferences

7. A. Murugeswari, **G. Suresh**, R. Ezhil Vizhi, D. Rajan Babu. *Synthesis and characterization of ferromagnetic* $La_{1-x}Ca_xMnO_3$ *nanoparticles*. **International** Conference on Recent Trends in Advanced Materials during 20th to 22nd Feb 2012 at School of Advanced Sciences, VIT University, Vellore-632014, Tamil Nadu, India.

6. R. Mahalakshmi, **G. Suresh**, T. Thiyagarajan, D. Rajan Babu. *Synthesis and Structural studies of Sm-Fe-C nanocomposite*. **National** Conference on Nanoscience and Nanotechnology (NCNN-2011) during 25th to 27th August 2011 at National Centre for Nanoscience and Nanotechnology, University of Madras, Maraimalai Campus, Chennai - 600 025, Tamil Nadu, India.

5. M. Makesh, **G. Suresh**, D. Rajan Babu. *Synthesis and study of dielectric loss of cobalt ferrite nanoparticles at high frequency for radio frequency inductor applications.* 2nd **International** Conference in Science, Engineering and Technology (SET-2011) during 20-21st April 2011 at VIT University, Vellore-632 014, Tamil Nadu, India.

4. K. Mohanapriya, **G. Suresh** and D. Rajan Babu. *Synthesis, and dielectric properties of FeNi nanoparticles for RF inductor applications*. 2nd **International** Conference in Science, Engineering and Technology (SET-2011) during 20-21st April 2011 at VIT University, Vellore-632 014, Tamil Nadu, India.

3. **G. Suresh**, P. Saravanan, D. Rajan Babu. *Effect of Gd doping in the Magnetic properties of Fe-Co nanograin*. **International** Conference on Nanomaterials and Nanotechnology (NANO-2010) during 13th - 16th Dec 2010 at K S Rangasamy College of Engineering & Technology, Tiruchengodu, Tamil Nadu, India.

2. **G. Suresh**, P. Saravanan, D. Rajan Babu. *One-pot synthesis of Fe-Co nanospheres by modified polyol process and its structural, magnetic studies.* **International** Conference Trends in Spintronics and Nanomagnetism, (TSN 2010) during 23rd - 27th May 2010 at University of Salento, CNR-Institute of Nanoscience, Ecotekne Campus, Lecce, Italy.

1. **G. Suresh**, D. Rajan Babu and P. Saravanan. *Synthesis of Fe-Co nanoparticles using dissimilar concentration of Surfactant and the study of its structural and magnetic properties*. **National** Conference on Recent Advances in Magnetic Materials & Applications (MAGMA 2010) during 20th- 21st January 2010 at Thiyagarajar College of Engineering, Madurai, Tamil Nadu, India.

Workshops/Conferences Attended

14. Faculty Development Programme on *"Microwaves- Theory and its Applications"* during 4th and 5th July 2011 conducted by Crystal Growth & Crystallography division, School of Advanced Sciences, VIT University, Vellore-632014, India.

13. *"International Workshop on Advanced Functional Nanomaterials"* during 21st - 24th February 2011 conducted by Centre for Nanoscience and technology, Anna University, Chennai-600 025, India.

12. *"Essentials of Good Research-Trends and Techniques"* on 30th October 2010 conducted by School of Social Sciences and Languages, VIT University, Vellore-632 014, India.

11. Faculty Development Programme on *"Multidimensional NMR : Basic Principle and its Applications"* during 27th - 28th March 2010 conducted by Academic Staff College & School of Advanced Sciences, VIT University, Vellore-632 014, India.

10. *Eighteenth National Symposium on Ultrasonics* during 21st - 23rd Dec 2009 conducted by School of Advanced Sciences, VIT University, Vellore-632 014, India.

9. *"Pre-Symposium workshop in Eighteenth National Symposium on Ultrasonics on Biomedical Applications"* during 19th - 20th December 2009 conducted by School of Advanced Sciences, VIT University, Vellore-632 014, India.

8. International Workshop on *"Advances in Nanoscience and Technology"* during 28th - 30th Oct 2009 conducted by Crystal Growth Centre, Anna University, Chennai-600 025, India.

7. *"One day IUAC acquaintance programme on Accelerator based Science and Technology"* on 20th Oct 2009 conducted by School of Advanced Sciences, VIT University, Vellore-632 014, India.

6. Workshop on *"Theory and Practice of X-Ray Diffraction Techniques"* during 13th - 17th July 2009 conducted by School of Physics, Alagappa University, Karaikudi-630 003, India.

5. Short term course on *"Electron Microscopy"* during 6th - 8th Sep 2008 under TEQIP Community Services conducted by Department of Metallurgical and Materials Engineering, National Institute of Technology, Tiruchirapalli-620015, India.

4. *"National Conference on Advanced Materials and Characterization"* during 23rd - 25th July 2008 conducted by School of Mechanical and Building sciences, VIT University, Vellore-632 014, India.

3. UGC Sponsored State Level Seminar on *"Super Ionic Conductors and its Applications"* on 13th Oct 2004, conducted by Department of Physics, Sri. G.V.G.Vishalakshi College, Udumalpet- 642 128, India.

2. Workshop on *"Recent Trends in Spectroscopy"* on 11th October 2004 conducted by Department of Physics, P. R. College, Thanjavur-613001, India.

1. Workshop on *"Non Linear Dynamics and its Applications"* during 9th - 11th Oct 2003 conducted by Department of Physics, A.V.V.M. Sri Pushpam College, Poondi- 613105, Thanjavur, India.

Instrumentation Expertise

- X-ray diffractometer (Bruker D8 Advance, Germany)
- Impedance analyzer (PSM1735, NumetriQ, N4L, U.K.)
- Tubular furnace-programmable (up-to 800 ˚C) under inert conditions
- Kanthal furnace-programmable (up-to 1000 ˚C)
- Prism coupler (Metricon, U.S.)

Teaching Experience

- **Assistant Professor & Head** from 2nd Sep 2011 - till date in the Department of Physics, Park College of Engineering and Technology, Kaniyur, Coimbatore-641 659, Tamil Nadu, India.

- **Research Associate** (RA) from 12th Feb 2008 to 30th June 2011 in the School of Advanced Sciences, VIT University, Vellore-632 014, Tamil Nadu, India.

- **Lecturer** from 20th Jan 2007 to 7th November 2007 in the Department of Physics, Sriram Engineering College (Affiliated to Anna University, Chennai - 600025, India), Perumalpattu, Chennai-600054, Tamil Nadu, India.

Software Packages handled

- GSAS (Rietveld refinement)
- Origin 8.1
- PCPDF
- Match! - Phase Identification from Powder Diffraction

Strengths

- Self-driven contributor in group activities
- Positive attitude
- Effective communicator
- Quick learner
- Dynamic and Deterministic

Social Responsibilities

- Blood donor
- Apheresis donor

Personal Profile

Father's Name	:	Late Mr. V. Govindarajan
Permanent Address	:	1/63, Sambandamurthy P. K. Street Thiruvarur-610 001, Tamil Nadu, India.
Mobile	:	+91 98940 70001 / +91 8124 220 270
Phone	:	+91 4296 271 303
Date of Birth	:	03-03-1983
Gender	:	Male
Nationality	:	Indian
Marital Status	:	Single

References

Dr. D. Rajan Babu (Ph.D. Thesis Supervisor)
Professor of Physics
Division Leader-Crystal Growth & Crystallography
School of Advanced Sciences
VIT University
Vellore-632 014, India.
drajanbabu@vit.ac.in
+91 94434 71434

Dr. P. Saravanan (Ph.D. Thesis Advisor)
Scientist-D
Defence Metallurgical Research Laboratory
Kanchanbagh
Hyderabad-500 058, India.
psdrdo@gmail.com
+91 94909 56724

Dr. P. Ramesh Babu
Professor of Physics
Division Leader-Photonics
School of Advanced Sciences
VIT University
Vellore-632 014, India.
prameshbabu@vit.ac.in
+91 94433 11353

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