**Curriculum Vitae**

 Dr.R.Nagalakshmi received her Ph.D., from Bharathidasan University, Tiruchirappalli, Tamil Nadu, India. She pursued her postdoctoral research in the Department of Condensed Matter Physics and Materials Science, Tata Institute of Fundamental Research, Mumbai. She joined in the Department of Physics NITT as faculty in December 2008.

***Research work :***

1. Synthesis, growth and characterization of new organic non-linear optical crystals with large transparency in UV–VIS region, optical susceptibilities, inherent ultrafast responses times, high optical threshold for laser power and good conversion efficiency for second harmonic generation (SHG) and Terahertz (THz) applications

2. Preparation of Poly and single crystalline rare earth intermetallic compounds (3D transition metals, rare earth and uranium) which exhibits strong electron correlations such as magnetic order, Kondo, Heavy fermion, Spin glass and superconductivity at low temperatures. The properties are measured using the techniques of electrical resistivity, magnetization and specific heat in the temperature range 1.8-300K and the analysis of data.

1. Investigations on some rare earth (Gd and Dy) and manganese based magnetic refrigerant materials
2. Synthesis of organic nano fibers for nonlinear optical applications

 *In the study of FeAs systems, for Co-doped sample CaFe1.94Co0.06As2 a superconducting transition is observed at T= 17 K (****Physical Review B 79, (2009) 012504)***

|  |  |  |
| --- | --- | --- |
|  1. |  Name : | Dr. R. Nagalakshmi |
| 2. |  Designation : | Assistant professor |
| 3. |  Office Address: | Department of physics, NIT Trichy |
| 4. |  Telephone & Exchange  | 0431-2503600 & 3615 |
| 5. |  Email :   | nagaphys@yahoo.com , nagalakshmi@nitt.edu  |
| 6. |  Field(s) of Specialization :  | * **Nonlinear optics**

Single crystal growth of nonlinear optical materials – Solution and MeltVibrational spectroscopySynthesis of organic nano fibers * **Strongly correlated electron systems**

Rare earth intermetallic systems - Flux technique and Arc MeltingMagnetism and superconductivity at low temperatures Rare earth & Non Rare earth based Magnetocaloric Materials |

7. Employment Profile

|  |  |  |  |
| --- | --- | --- | --- |
| **Job Title** | **Employer** | **From** | **To** |
| Assistant Professor/Physics | National Institute of Technology, Tiruchirappalli, TN | Dec 2008 | till date |
| Post doctoral Fellow | Tata Institute of Fundamental Research, Mumbai , Department of Condensed Matter Physics and Materials Science | August 2007 | December 2008 |
| Research Associate | Indian Institute of Science, Bangalore | 02 July 2007 | 31 July 2007 |
| Senior Research Fellow, CSIR | Periyar University , Salem | April 2007 | June 2007 |
| Junior Research Fellow, DRDO | Nehru Memorial College (Autonomous)Puthanampatti, Tiruchirappalli | April 2003 | October 2006 |

8. Academic Qualifications (From Highest Degree to High School):

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Examination** | **Board / University** | **Year** | **Division/ Grade** | **Subjects** |
| Ph.D | Bharathidasan University Tiruchirappalli | 2007 | Commended | Physics, Materials Science |
| M.Phil | Bharathidasan University Tiruchirappalli | 2004 | 89.6%, Distinction | Physics |
| M.Sc | Bharathidasan UniversityTiruchirappalli | 2002 | 81.9%First Class  | Applied Physics |
| B.Sc | Bharathidasan University Tiruchirappalli | 2000 | 83.5%, First Class with Distinction | Physics |
| HSC | St.Marys Matriculation Hr.Sec School, Cuddalore | 1997 | 83.2% | State Board |
| SSLC | Bharathi Matriculation Hr.Sec. SchoolThammampatty | 1995 | 86.2% | Matriculation |

9. Academic/Administrative Responsibilities within the University

|  |  |  |  |
| --- | --- | --- | --- |
| **Position** | **Faculty/Department/Centre/Institution** | **From** | **To** |
| Ph.D. Coordinator (Department Coordinator) | Ph.D admissions, Conducting Class Test and Semester Examination, Comprehensive Viva and Overall monitoring of the course at Department level | June 2012 | July 2016 |
| Ph.D. Coordinator( Institute) for Physics and Chemistry | ..do… at Institute level for Physics and Chemistry departments | June 2012 | June 2014 |

10. Awards, Associateships etc.

|  |  |  |
| --- | --- | --- |
| **Year of Award** |  **Name of the Award** | **Awarding Organization** |
| 2016 | Travel grant to present papers (Oral and Poster) in Conference at Big Sky, Montana , USA. | DST and INSA |
| 2010 | Young Scientist Research Award | Basic science Committee, Board of Research in Nuclear Sciences |
| 2009-2012 | Level – II certification on Ultrasonic Testing  | ASNT |
| 2002 | First Rank (Gold Medalist) in M.Sc Applied Physics | Bharathidasan University, Tiruchirappalli |
| 2000 | 8th Rank in B.Sc (Physics) | Bharathidasan University, Tiruchirappalli |

11. Fellowships

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Year of Award** | **Name of the Fellowship** | **Awarding Organization** | **From****(Month/Year)** | **To****(Month/Year)** |
| 2006 | Jawaharlal Nehru Memorial fellowship | Osaka University, Osaka, Japan | Apr 2006 | July 2006 |
| 2006 | Visiting Fellowship | Jawaharlal Nehru Centre for Advanced Scientific Research, Jakkur, Bangalore | 2006 | 2007 |
| 2010 & 2016 | National Slovak Scholarship for Teachers, (Twice) | Slovak Academy of Sciences | May 2010 | July 2010 |

12. Details of Academic Work

**(i) Curriculum Development: (Syllabus Revision)**

**M.Sc :**PH 677 - Instrumentation and PH 661 Solid State Physics,

PH- 659-General Physics Laboratory – I ( Introduced New Experiments)

**M.Tech :**PH 614- Advanced NDT I

**Ph.D :** Course work

**(ii) Courses taught at Postgraduate and Undergraduate levels :**

**B.Tech :**PH 101 and PH 102-(PHYSICS I and II)

 **M.Sc :**PH 677 - Instrumentation and PH 661 Solid State Physics,

PH- 659-General Physics Laboratory – I

**M.Tech :**PH 614- Advanced NDT I

**Ph.D :** Course work –PH: 800 Research Techniques in Physical Sciences

 **(iv) Other contribution(s)**

* Purchase initiator of department plan fund purchases
* Committee members for convocation at institute level
* Stock verification at institute level
* Establishment of research laboratory facilities

13. Details of Major R&D Projects

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Title of Project** | **Funding Agency** | **Duration** | **Cost(Rs. In lakhs)** | **Status** |
| **From** | **To** | **Ongoing/ Completed** |
| Growth and irradiation of Rare earth intermetallic crystals for magnetic applications | DAE Young scientist Research Award by Basic science Committee, Board of Research in Nuclear Sciences (BRNS).No: 2010/20/37P/13/BRNS dt 18/2/2011 | 2010 | 2013 | 16,40,000/- | Completed |
| Functionalized materials for electrooptics: Synthesis, single crystal growth, nonlinear and electrooptical properties | Council Of Scientific And Industrial ResearchHuman Resource Development GroupNo: 03(1158)/10/EMRII dated 26/4/2010 | 2010 | 2013 | 17, 23,000/- | Completed |
| Crystal growth vibrational studies and nonlinear optical properties of tartrates | Indo Portugese Joint Project by DST INT/PORTUGAL/P-12/2009 dated 27/12/2009 | 2010 | 2013 | 4,64,200/-(Exchange visits , 1 visit per year) | Completed |
| Magnetic field induced structural transition studies on some rare earth and non-rare earth giant MCE compounds exhibiting first-order magnetic transitions | UGC-DAE Indore CSR-IC/CRS-150/2015-2016/07Date: 26/03/2016 | 2016 | 2019 | 6,54,000/- | Ongoing |
| Synthesis of Organic Nanofibers for NLO Applications | DST-SERB, New DelhiFile No: EMR/2016/005324 | 2017 | 2021 | 27,06,192/- | On going |

14. Research Guidance

|  |  |  |
| --- | --- | --- |
| **M.Sc projects** | **M.Tech projects** | **Ph.D** |
| **Completed:**15 | **Completed:**15 | **Completed :** 2(Regular)**Ongoing:** 4 (Regular) 1(Part Time)**M.S by Research** : 1 **(ongoing)** (part time)  |

Number of PhDs guided: 2

|  |  |  |  |
| --- | --- | --- | --- |
| **Name of the PhD Scholar** | **Title of PhD Thesis** | **Role(Supervisor/ Co-Supervisor)** | **Year of Award** |
| S.Nallamuthu | Magnetic, Thermodynamic and Transport Properties of R-T-X Type Intermetallic Compounds | Supervisor | 2016 |
| N.Sudharsana | Growth And Charecterisation Of Novel Organic Crystals For Nonlinear Applications | Supervisor | 2014 |

15. Participation in Workshops/ Symposia/ Conferences/ Colloquia /Seminars/ Schools etc. (mentioning the role)

**Workshops**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Date (s)** | **Title of Activity** | **Level of Event****(International/ National/ Local)** | **Role (Participant/ Speaker/ Chairperson, Paper presenter, Any other)** | **Event Organized by** | **Venue** |
| 1. December 7-10, 2004.
 | Indo Japan Workshop on crystal growth and applications of advanced materials for Opto electronics | International | Participant | Crystal Growth Centre Anna University | Crystal Growth Centre Anna University, Chennai, India |
| July 6-7, 2005 | Accelerator User Workshop | National | Participant | University Accelerator Centre (IUAC), New Delhi | University Accelerator Centre (IUAC), New Delhi,  |
| August 18-19, 2005 | workshop on optics and Photonics-WOOP 2005,  | National | Participant | National Institute of Technology | National Institute of Technology |
| August 30-31, 2005. | workshop on recent advances in Physical science Research,  | National | Participant | Periyar University, Salem | Periyar University, Salem, |
| 2005 and 2009 | 1. irradiation of swift heavy ions
 |  | Experimental work | Inter University Accelerator Center (IUAC), New Delhi | Inter University Accelerator Center (IUAC), New Delhi |
| November 25 and December 5, 2007. | Workshop on `Correlated Electrons and Frustrated Magnetism’ (CEFM 07),  | International | Participant | International Centre, Dona Paula, Goa, | International Centre, Dona Paula, Goa, |
| January 27, 2009 – 2 February 2009 | Training and Certification course on ASNT – Level 2- on Ultrasonic testing, ,  |  | Participant | MSME Testing Centre, Chennai | MSME Testing Centre, Chennai |
| December 3-4, 2010 | Science Academics Lecture workshop on Spectroscopy  | National | Participant | Department of Chemistry, NITT | Department of Chemistry, NITT |
| 5th September 2012 | CSIR project Monitoring Session of Extramural Research Schemes.  | National | Project presenter | physical sciences research committee by CSIR New Delhi | physical sciences research committee by CSIR New Delhi |
| 1. 26-28, November, 2012.
 | 1. BRNS Project presentation in the Young Scientist Awardees Meet ,
 | National | Principal Investigator | BARC, Mumbai | BARC, Mumbai |
| October 25-26,2013 | 1. BRNS Basic Science Meeting (BRNSProject Monitoring Session)
 | National | Principal Investigator | Anna University,Chennai-620025 | Anna University,Chennai-620025 |
| on May 28, 2014  | Presented DST project proposal before the Programme Advisory Committee on *“*Condensed Matter Physics and Materials Science”  | National | Principal Investigator | PSG Institute of Advanced Studies, Coimbatore- 641004 | PSG Institute of Advanced Studies, Coimbatore- 641004 |
| 1. Jan 20, 2015
 | 1. Strongly Correlated Electron Systems (SCES),
 | National | Participant | Bharathidasan University, Trichy, | Bharathidasan University, Trichy, |
| 1. Feb 23- 27,2015
 | 1. Asian Charge Density Workshop (ACDW)
 | International | Participant | IISC, Bangalore | IISC, Bangalore |
| 28th and 29th April 2015 | 1. TEQIP-II sponsored Conclave on Academic Reforms(CAR 2015),
 | National | Participant | NITT | NITT |
| 18-19, December 2015 | Research Scholars Workshop | National | **Best research paper presentation (oral) award** |  UGC-DAE Consortium for Scientific Research | Indore, Madhya Pradesh |
| February ,10, 2016 | Collaborative Research Scheme | National | Principal Investigator |  UGC-DAE Consortium for Scientific Research | Indore, Madhya Pradesh |
| March 11, 2016 | Materials Research Panel Meeting by  | National | Principal Investigator | Naval research Board | IIT Madras, Chennai |
| 09-12 January 2017. | Indo-French workshop on pressure effects on strongly correlated electron systems | International | Participated | Bharathidasan UniversityIWPESCM-2017 | BDUTrichy |

**Conferences**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Date (s)** | **Title of Activity** | **Level of Event****(International/ National/ Local)** | **Role (Participant/ Speaker/ Chairperson, Paper presenter, Any other)** | **Event Organized by** | **Venue** |
| 1. March 8-10, 2004.
 | Regional Conference on Photo Acoustics, Condensed Matter Physics | National | Paper Presenter | Condensed Matter Physics and NDT (2004) | Madurai Kamaraj University, Madurai, India |
| 1. December 26-30, 2004
 | 49th DAE Solid State Physics Symposium | National | Paper Presenter  | sponsored by Board of Research in Nuclear Sciences, Department of Atomic Energy, Nanak Dev University | Nanak Dev University, Amritsar, India |
| January 10 - 12, 2005 | fourth DAE- BRNS National Laser Symposium (NLS-4) | National | Paper Presenter | Babha Atomic Research Centre | Mumbai, India |
| February 9 - 12, 2005 | International Conference on Spectrophysics (INCONS 2005) | International | Paper Presenter  | Pachaiyappa’s College, Chennai | Pachaiyappa’s College, Chennai |
| February 28-March 01, 2005 | 1. conference on crystal growth techniques and modelling
 | National | Paper Presenter | Anna University, Chennai | Anna University, Chennai |
| April 22, 2005 | National Symposium on Chemical Structures and Dynamics | Participated | Paper Presenter  | Indian Institute Technology Madras, Chennai | Indian Institute Technology Madras, Chennai |
| February 16 -17, 2006 | National conference on recent advances in Materials Science | National | Paper Presenter  | Periyar University, Salem | Periyar University, Salem |
| December 21-22, 2006. | conference on PTLUPA-6 | National | Paper Presenter  | Institute of Technology Madras, Chennai | Institute of Technology Madras, Chennai |
| January 29-30, 2007 | National conference on Recent Advances in Vibrational Spectroscopy (NCVS 2007) | National | Paper Presenter  | Periyar University, Salem | Periyar University, Salem |
| March 26- 27, 2007 | 1. Second National Conference on Nonlinear Optics and Modelling in Crystal Growth
 | National | Paper Presenter  | Anna University, Chennai | Anna University, Chennai |
| 1. December 27-31, 2007.
 | 1. DAE Solid State physics Symposium sponsored
 | National | Poster presented | Department of Atomic Energy , Government of India | University of Mysore, Mysore, India |
| 1. Aug 17th -24, 2008
 | International Conference on, Strongly Correlated Electron Systems  | International | Poster presented | (SCES-2008) | (SCES-2008), held in Brazil |
| December 10-12, 2009 | 1. National Seminar and Exhibition on Nondestructive Evaluation
 | National | Participated | BHEL ,Trichy | 1. NITT, India.
 |
| December 17- 18, 2009 | 1. beam time proposal
 | National | Paper Presenter  | 47th Accelerator User Workshop, Inter University Accelerator Centre |  New Delhi |
| 18 -19, March, 2011 | Carried out Swift heavy ion irradiation (Oxygen and Gold ion of different fluences) | National | Paper Presenter  | 47th Accelerator User Workshop Inter University Accelerator Centre | New Delhi |
| July 06 – 09, 2010 | 14th Czech and Slovak Conference on Magnetism | International | Participated | CSMAG 10 in Kosice | Kosice, Slovakia |
| November 10,2010 | 32nd Basic Science Review Committee, BRNS | National | presented the salient features of the Major research project proposal  | BARC | Mumbai |
| 21-25 August 2011 | Optics + Photonics 2011 | International | poster Presenter  | SPIE | San- Diego, CA, USA |
| 1. December 12-16, 2011
 | International Conference on Advanced Materials held | International | Paper Presenter  | (ICAM-2011) | Department of Physics, PSG college of Technology, Coimbatore |
| 1. December 19-23,2011
 | 56th DAE-Solid State Physics Symposium | National | poster Presenter  | SRM University, Kattankulathur | SRM University, Kattankulathur |
| 1. January 9-12, 2012
 | DAE-BRNS National Laser Symposium (NLS-20) | National | poster Presenter  | DAE-BRNS ,Crystal Growth Centre | Anna University, Chennai |
| 1. Feb 19-22 , 2012
 | Conference on Materials Engineering and Technology (ICMET-2012) | National | Paper Presenter  | (ICMET-2012) | KL, Malaysia |
| December 9-12, 2012 | Photonics 2012 | National | poster Presenter  | IIT Madras | IIT Madras |
|  - | International Conference on Fundamental and Applied Sciences, (ICFAS) | International | Paper Presenter  | (ICFAS),Singapore | Singapore |
| January 9-11,2013 | 17th National seminar on crystal growth | National | Paper Presenter  | Department of Physics, Anna University | Chennai |
| February 3-4, 2014 | Recent Advances in Materials Science (RAMS-2014) | National | Paper Presenter  | (RAMS-2014 Department of Physics) | Bharathidasan University,Tiruchirappalli-24 |
| December 16-20 2013 | International Union of Materials Research Societies – International Conference | International | poster Presenter  | Asia – 2013(IUMRS-ICA 2013) | IISC, Bangalore-12 |
| January 8-11, 2014 | DAE-BRNS National Laser Symposium (NLS)  | National | poster Presenter  | Department of Atomic and Molecular Physics | MIT, Manipal University, Manipal- 576104, Karnataka, INDIA |
| December 16-20 2013 | International Union of Materials Research Societies – International Conference in Asia – 2013 (IUMRS-ICA 2013) | International | poster Presenter  | (IUMRS-ICA 2013) IISC, Bangalore-12 | IISC, Bangalore-12 |
| Oct.23-25, 2013 | Conferenceon Nanostructuring by Ion Beams ([ICNIB 2013](https://sites.google.com/site/icinb2013/)) | National | poster Presenter  | ([ICNIB 2013](https://sites.google.com/site/icinb2013/)) -Jaipur | Jaipur |
| 7-11 , July 2014 | International Conference on Strongly Correlated Electron Systems  | International | poster Presenter  | (SCES 14) | Grenoble, France |
| 1. September 15-17, 2014
 | International Conference on Magnetic Materials and Applications ( ICMAGMA- 2014) | International | Paper Presenter  | Pondicherry University | Pondicherry , India |
| 1. August 2 – 7, 2015
 | 20th American Conference on Crystal Growth and Epitaxy (ACCGE-20) | International | Paper Presenter  | Big Sky, Montana, USA | USA |
| 1. October 15-16, 2015
 | UGC sponsored two days national seminar | National | Paper Presenter  | St. John’s College, Anchal, Kollam | Anchal, Kollam, Kerala |
| 1. 26th – 28th May 2016
 | First Symposium On Advanced Functional Materials(FUNMAT) conducted | National | poster Presenter - 2 **(Best Poster)**  | CECRI, Karaikudi | CECRI, Karaikudi |
| 1. October 31 - November 4, 2016
 | *2016 Conference on Magnetism and Magnetic Materials* (MMM 2016) | International | Paper Presenter  | New Orleans Marriott in New Orleans, Louisiana  | U. S. A |
| 1. January 9-12,2017 .
 | Physics of strongly correlated electron system (GIAN Program) | International | Partcipated | Bharathidasan Universiyt, Trichy | BDUTrichy |
| 1. July 17-21,2017.
 | International conference on Strongly Correlated Electron Systems (SCES-2017) | International | Poster Presented | Prague, Czech Rebublic | Prague |

1. Workshops/ Symposia/ Conferences/ Colloquia/Seminars Organized (as Chairman/ Organizing Secretary/ Convenor / Co-Convenor)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Title of Activity** | **Level of Event****(International/ National/ Local)** | **Date (s)** | **Role** | **Venue** |
| Two days workshop , Convergence 2012, Recent Trends in Materials Research | National | 21-22, December 2012 | Convenor | Department of Physics, NITT |
| One day course on Advancements in Crystalline Materials | National | 5 November, 2014 | Convenor | Department of Physics, NITT |
| Workshop on statistical Physics and Materials Science | National | 21-23 July 2016 | Co ordinator | Department of Physics, NITT |

1. Invited Talks delivered

|  |  |  |
| --- | --- | --- |
| **Institute** | **Duration** | **Lecture Topics** |
| Periyar UniversitySalem | March 12, 2009Workshop on Recent Developments in advanced Materials Research | Invited talk on intermetallic Superconductors - |
| Sri Paramakalyani CollegeAlwarkurichi | March , 2009 Physics Association | Anisotropic, Magnetic and Superconducting properties of Iron oxide rare earth inter metallic compounds |
| National College Triruchirappalli | January 23, 2010Physics Association | Anisotropic, Magnetic and Superconducting properties of rare earth inter metallic compounds |
| Institute of Experimental physics, Slovak Academy of Sciences, Slovakia | May 30, 2010 | Invited talk onStrongly correlated systems |
| Institute of PhysicsJan Dlugosz University, Poland | May 27 – May 31,2011 | Invited talk onStudies on rare earth intermetallic systems |
| National College, Trichy | 02 December 2012 | Invited talk on Anisotropic Magnetic and Transport Properties of Rare Earth Intermetallic Compounds |
| Anna University | 9-11 January 2013 XVII National Seminar on Crystal Growth | Strongly Correlated Electron System |
| Bishop Heber College Tiruchirappalli | Physics Association, 5th August,2013 | Swift Heavy ion irradiation  |
| Department of Physics, Central University of Tiuvarur |  29 January 2014 | Strongly Correlated Electron System |
| Department of Production Engineering, NITT | March 17, 2014 | Pnictide superconductors |
| School of Electrical and Electronics EngineeringSASTRA University, Thanjavur | October 10,11 2014 | Photonic Materials |
| Bharathidasan University, Tiruchirappalli | 20 November, 2014  | Refresher Course |
| Dept of Physics, Seethalakshmi Ramaswami College, Trichy | 29 January 2015 | Crystalline Materials |
| Bharathidasan University, Tiruchirappalli | 22 February, 2016 | Refresher Course |
| Dept of PhysicsNational College,Trichy | 1 October 2016 | Technology Assisted Research |
| Indo-French workshop on pressure effects on strongly correlated electron systems (IWPESCM-2017) in Bharathidasan University, Trichy  | 11 January 2017 | Interesting aspects of Rare Earth Intermetallics |
| Cauvery college for women,Trichy | 28 February 2017 | Special Talk on Science Day |
| National College, Trichy | 23 August 2017 | Physics Association : Crystal Microns to Meters |
| Cauvery college for women, Trichy | 04 September 2017 | Physics Association : Terahertz Gap |

1. Membership of Learned Societies

|  |  |  |
| --- | --- | --- |
| **Type of Membership (Ordinary Member/ Honorary Member / Life Member )** | **Organization** | **Membership No. with date** |
| Life Member – Indian Society for Non Destructive Testing | 2009 |  LM-8455-TC |
| Life Member –Materials Research Society of India | 2015 | LMB2462 |

19. Academic Foreign Visits

|  |  |  |
| --- | --- | --- |
| **Country** | **Duration of Visit** | **Programme** |
| Osaka University Japan  | April 2006-July 2006 | Jawaharlal Nehru Memorial fellowship,  |
| Institute of experimental Physics, Slovak academy of sciences, Kosice, Slovakia | May 23, 2010 to July 15, 2010 | National Scholarship Program of the Slovak Republic |
| Laboratory for molecular cryospectroscopy and Biospectroscopy, Department of Chemistry, Universidade de Coimbra , Portugal  | May 15 – June 15, 2011 | Indo Portugese Cooperation of science and Technology |
| Institute of PhysicsJan Dlugosz University, Poland | May 27- May 31 , 2011 | Invited talkStudies on rare Earth intermetallic systems  |
| Kuala Lumpur, Malaysia. July 24-26, 2012 | Feb 19-22 , 2012 | International Conference on Materials Engineering and Technology (ICMET-2012) |
| International Centre for Theoretical Physics (ICTP), Trieste Italy | 24- 26 September 2013 | Workshop on Light Element Materials based Superconductors  |
| Big Sky Montana USA  | August 2-7, 2015 | AACGE Conference (Oral and Poster) |
| Prague, Czech Rebublic | July 17-21,2017 | (SCES-2017)Poster Presentation |

**Academic Foreign Visits (By Students)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Country** | **Name** | **Duration of Visit** | **Programme** |
| Slovakia | Dr.S.Nallamuthu | October – December 2013 | National Scholarship Program of the Slovak RepublicPresov University |
| T.P.Rashid | September – November 2015 |
| K.Arun | August – October 2016 |
| France | Dr.S.Nallamuthu(Sponsored by TEQIP) | July 7-11, 2014 | Strongly Correlated Electron Systems (SCES) Conference , Grenoble  |
| USA | T.P.Rashid(Awarded DST Travel Grant) | October 31- November 4, 2016 | 2016 Conference on Magnetism and Magnetic Materials (MMM 2016), New Orleans  |
| Hungary  | K.M.Hijas | Scheduled for Feb –July 2018.  | Stipendium Hungaricum Fellowship 2017 – 18 |

20. **Publications: Refereed Research Journals:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Author(s)** | **Title of Paper** | **Journal** | **Volume (No.)** | **Page numbers** | **Year** | **Impact Factor of the Journal****(Optional)** |
| T.P. Rashid , K. Arun , Ivan Curlik , Sergej Ilkovic , Marian Reiffers , Andrea Dzubinska ,R.Nagalakshmi | Effect of spin fluctuations in magnetocaloric and magnetoresistance properties of Dy10Co20Si70 alloy | 1. Journal of Applied Physics
 | 122 | 093903 | 2017 | 2.103 |
| S Nallamuthu, A Dzubinska, M Reiffers, JR Fernandez | [Ferromagnetism in orthorhombic RagAl 3 (R= Ce and Pr) compounds](https://scholar.google.co.in/scholar?oi=bibs&cluster=15500211931542755653&btnI=1&hl=en) | 1. Physica B: Condensed Matter
 | 521 | 128 | 2017 | 1.386 |
| Nallamuthu, Adubinska, M Reiffers, R.Nagalakshmi | 1. [Low Temperature Magnetic Ordering in NdAgAl 3.](https://scholar.google.co.in/scholar?oi=bibs&cluster=17729013944679204774&btnI=1&hl=en)
 | 1. Acta Physica Polonica A
 | 131 | 1013 | 2017 | 1.38 |
| TP Rashid, I Curlik, S Ilkovic, M Reiffers, R.Nagalakshmi | [Gd3Fe4Si Alloy for Magnetic Refrigeration Application in a Wide Temperature Range](https://scholar.google.co.in/scholar?oi=bibs&cluster=724092623496848691&btnI=1&hl=en) | 1. Journal of Superconductivity and Novel Magnetism
 |  |  | 2017 | 1.38 |
| S Nallamuthu, S Selva Chandrasekaran, P Murugan, Marian Reiffers, R Nagalakshmi | Magnetic, thermodynamic and transport properties of novel non-centrosymmetric RcoSi3 (R= Pr, Nd and Sm) compounds | 1. Journal of Magnetism and Magnetic Materials,
 | 416 | 373-383 | 2016 | 2.357 |
| T.P. Rashid, S. Nallamuthu, K. Arun, Ivan Curlik, Sergej Ilkovic, Marian Reiffers, and R. Nagalakshmi | Magnetocaloric properties of GdFe0.83Al3.02 multiphase alloy having multiple magnetic transitions | 1. Journal of Materials Chemistry and Physics,
 | 180 | 279-283 | 2016 | 2.101 |
| T.P. Rashid, S. Nallamuthu, K. Arun, Ivan Curlik, Sergej Ilkovic, Andrea Dzubinska, Marian Reiffers, and R. Nagalakshmi | Magnetocaloric effect over a wide temperature range due to multiple magnetic transitions in GdNi0.8Al1.2 alloy | 1. European Physical Journal Plus,
 | 31 | 156 | 2016 | 1.521 |
| N.Sudharsana, S.Hamad,S.Venugopal Rao,V.Krishnakumar, R.Nagalakshmi | [A systematic study of hydroxyethylammonium p-nitrophenolate single crystal exhibiting third order nonlinearity](http://www.sciencedirect.com/science/article/pii/S0022024816300069) | 1. Journal of Crystal Growth
 | 452  | 179-183 | 2016 | 1.462 |
| N.Sudharsana, V.Krishnakumar, R.Nagalakshmi | Experimental and Theoretical Investigations of Non-Centrosymmetric 8-hydroxyquinolinium dibenzoyl-(L)-tartrate methanol monohydrate single crystal | 1. Materials Research Bulletin, (Impact factor: 1.96)
 | 61 | 136-145 | 2015 | 1.96 |
| N.Sudharsana, S.Hamad,S.Venugopal Rao,V.Krishnakumar, R.Nagalakshmi | Hydroxyethylammonium maleate (HEAM) single crystal for optical limiting applications | 1. Applied Physics A: Materials Science and Processing,
 | 118 | 553-561 | 2015 | 1.694 |
| R. Nagalakshmi,Ruta Kulkarni, S.K. Dhar, A. Thamizhavel, V. Krishnakumar, Marian Reiffers, Ivan Čurlik, Hans Hagemann, Dominique Lovy, S. Nallamuthu | Magnetic properties of the tetragonal RcuGa3 (R=Pr, Nd and Gd) single crystals | 1. Journal of Magnetism and Magnetic Materials,
 | 386 | 37-43 | 2015 | 2.002 |
| N. Sudharsana, A. Sharma, N. Kuş, R. Fausto, M. Luísa Ramos, V. Krishnakumar, R. Pal, T.N. Guru Row, R. Nagalakshmi | 1. Low temperature FTIR, Raman, NMR spectroscopic and theoretical study of

hydroxyethylammonium picrate | Journal of Molecular Structure | 1104  | 40-51 | 2016 |  1.753 |
| S. Prabu, R. Nagalakshmi, J. Balaji, P. Srinivasan | 1. Synthesis, crystal growth, studies on vibrational spectroscopy and nonlinear optical properties of 4-methoxy-40-chlorochalcone
 | 1. Materials Research Bulletin
 | 50 | 446-453 | 2014 | 1.968 |
| S. Prabu, R. Nagalakshmi, J. Balaji, P. Srinivasan | 1. Investigations on the Vibrational Modes and Non-linear Optical Properties of 4-Fluoro Chalcone Crystal
 | 1. Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy
 | 129  | 114-120 | 2014 | 2.129 |
|  N.Sudharsana, G.Jasmine, S.Muthunatesan, V.Krishnakumar, R.Nagalakshmi | 1. Experimental and theoretical studies of 2,5-dichloroanilinium picrate
 | 1. Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy,
 | 121 | 53-62 | 2014 | 2.129 |
| S.Nallamuthu, T.P.Rashid, V.Krishnakumar, Celine Besnard, Hans Hagemann, Marian Reiffers, R. Nagalakshmi | 1. Anisotropic magnetic, transport and thermodynamic properties of novel tetragonal Ce2RhGa12 compound
 | 1. Journal of Alloys and Compound,
 | 604 | 319-383 | 2014 | 2.72 |
| N.Sudharsana, R.Nagalakshmi, V.Krishnakumar | 1. Synthesis, Experimental and Theoretical Studies of 8-hydroxyquinolinium-3, 5-dinitrobenzoate single crystal
 | 1. Journal of Crystal Growth
 | 398 | 45-47 | 2014 | 1.69 |
| N.Sudharsana, K.Asokan, V.Krishnakumar, R.Nagalakshmi | 1. Oxygen and gold ion irradiation effects on hydroxyethylammonium (L) tartrate monohydrate single crystals
 | 1. Radiation Measurements,
 | 49 | 88-94 | 2013 | 1.14 |
| S. Prabu, R. Nagalakshmi, P.Srinivasan | 1. Investigations on the physico chemical properties of 4-bromochalcone single crystals for nonlinear optical applications
 | 1. Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy
 | 103 | 45-52 | 2013 | 2.129 |
| V Krishnakumar, G Shanmugam and R Nagalakshmi | 1. Large third-order optical nonlinearity of Mg-doped PbS/PVA freestanding nanocomposite films
 | 1. J. Phys. D: Appl. Phys. 45 (2012) 000000 (7pp)
 | 45 |  | 2012 | 2.521 |
| N.Sudharsana, B.Keerthana, R.Nagalakshmi, V.Krishnakumar, L. Guru Prasad | 1. Growth and Characterization of Hydroxyethylammonium Picrate Single Crystals for Third-Order Nonlinear Optical Applications
 | 1. Materials Chemistry and Physics,
 | 134 | 736-746 | 2012 | 2.129 |
| N. Sudharsana, G. Subramanian, V. Krishnakumar, R. Nagalakshmi | 1. Growth and characterization of anilinium hydrogen sulfate (AHS) single crystals: An organic nonlinear optical material
 | 1. Spectrochimica Acta ,
 | 97 | 798-805 | 2012 | 2.129 |
| L.Guruprasd, V.Krishnakumar , R. Nagalakshmi | 1. Growth and nonlinear optical studies of N-acetyl-l-Cysteine crystal
 | 1. Eur. Phys. J. Appl. Phys (Impact Factor: 0.789)
 | 57 | 10201 | 2012 | 0.789 |
| V.Krishnakumar, M. Rajaboopathi, R. Nagalakshmi | 1. Studies on vibrational, dielectric, mechanical and thermal properties of organic nonlinear opticalco-crystal:2,6-diaminopyridinium–4-nitrophenolate–4-nitrophenol
 | 1. Physica
 | 407 | 1119-1123 | 2012 | 1.276 |
| V.Krishnakumar, M.Rajaboopathi, R. Nagalakshmi | 1. Optical and mechanical properties of MgCl2 added triglycine sulphate single crystals
 | 1. International Journal of Modern Physics B,(Impact Factor: 0.4)
 | 26 | 1250038 | 2012 | 0.4 |
| Nagalakshmi, Ruta Kulkarni, S.K.Dhar, . Thamizhavel, V.Krishnakumar, Céline Besnard, Hans Hagemann, Marian Reiffers | 1. Crystal growth and structure determination of novel tetragonal Ce2RhGa12 compound
 | 1. Chemistry of Metals and Alloys Volume 4, Issue ¾
 |  | 229-233 | 2011 | - |
| V. Krishnakumar, M. Rajaboopathi, R. Nagalakshmi | 1. MgCl2 added triglycine sulphate crystals
 | 1. Adv. Mater. Letter 2 (2011) 163-169.
 |  | 163-169 | 2011 | 1.93 |
| L.Guruprasad, V.Krishnakumar, R. Nagalakshmi , S.Manohar | 1. Physicochemical properties of highly efficient organic NLO crystal: 4-aminobenzamide
 | 1. Materials Chemistry and Physics
 | 128 | 90-95 | 2011 | 2.129 |
| R. Nagalakshmi, V.Krishnakumar, Hans Hagemann, S.Muthunatesan | 1. Polarized Raman and hyperpolarizability studies of Hydroxyethylammonium (L) tartrate monohydrate for quadratic nonlinear optics
 | 1. J. Mol. Structure..
 | 988 | 17-23 | 2011 | 1.599 |
| R.Nagalakshmi, V.Krishnakumar,N.Sudharsana, A.Wojciechowski, M.Piasecki, I.V.Kityk, Michael Belsley ,DmitryIsakov | 1. Studies on physico – chemical properties of Hydroxyethylammonium (L) tartrate monohydrate single crystals
 | 1. Physica B: Condensed Matter
 | 406 | 4019-4026 | 2011 | 1.276 |
| V.Krishnakumar, R. Nagalakshmi , S.manohar, M.Piasecki, I.V.Kityk, P.Bragiel | 1. Parametrical optical effects in the 1:1 complex of resorcinol and urea – a nonlinear optical crystal
 | 1. Physica B Condensed Matter. (Impact Factor: 1.276)
 | 405 | 839 | 2010 | 1.276 |
| Neeraj Kumar, K.V.Shah, R. Nagalakshmi , S.K.Dhar | 1. Strongly correlated electron behavior in R2Ru3Ga9 (R = Ce and U)
 | 1. Journal of Applied Physics,
 | 107 | 09E113 | 2010 | 2.259 |
| L.Guruprasad, V.Krishnakumar, R. Nagalakshmi | 1. Investigation on the physicochemical properties of 2,4-dinitrophenol-:Efficent organic nonlinear optical crystal for frequency doubling
 | 1. Physica B Condensed Matter
 | 405 | 1652 | 2010 | 1.276 |
| V.Krishnakumar , S.Manohar, R. Nagalakshmi | 1. Semiorganic nonlinear optical l-lysine sulphate growth and characterization
 | 1. Spectrochim Acta A
 | 75 | 1394 | 2010 | 2.129 |
| L.Guruprasad, V.Krishnakumar, R. Nagalakshmi et al.,  | 1. Spectroscopic and physicochemical studies on organic crystal of Brucine hydrogen maleate pentahydrate
 | 1. Spectrochim Acta A,
 | 77 | 87 | 2010 | 2.129 |
| V.Krishnakumar, R.Nagalakshmi, S.Manohar, K.Ozga, B.Claudet, M.Piasecki, I.V.Kityk, L.Kocsis, J.Pisarek | 1. Elastooptical spectra of novel L-lysine monohydrochloride dehydrate single crystals
 | 1. International Journal of Modern Physics B.
 | 24 | 629 | 2010 | 0.4 |
| L.Guruprasad, V.Krishnakumar, R. Nagalakshmi | 1. Structural, spectral, thermal and optical studies on organic nonlinear optical 2-naphthol crystal
 | 1. Crystal Research Technology.
 | 45 | 1057-1063 | 2010 | 1.12 |
| V. KrishnaKumar, S. Manohar, R. Nagalakshmi, M. Piasecki, I.V. Kityk, P. Bragiel | 1. Zinc potassium phosphate hexahydrate crystals for nonlinear optics
 | 1. Eur. Phys. J. Appl. Phys.
 | 423 | 263-267 | 2009 | 0.789 |
| Neerajkumar, R. Nagalakshmi, R.Kulkarni, P.L.Paulose, A.K.Nigam,S.K.Dhar, A.Thamizhavel | 1. Anisotropic magnetic and superconducting properties of  I2-xCoxAs2 (x=0,0.06) single crystals
 | 1. Physical Review B
 | 79 | 012504 | 2009 | 3.767 |
| V. Krishnakumar, L. Guruprasad, R. Nagalakshmi | 1. Physicochemical properties of organic non-linear optical crystal for frequency doubling : glycine acetamide
 | 1. Materials Letters.
 | 63 | 1255-1257 | 2009 | 2.269 |
| V.Krishnakumar, R.Nagalakshmi, K. Ozga, M. Piasecki, I. V. Kityk, P. Bragiel | 1. 3-nitroaniline and 3-nitrophenol – A novel non linear optical material
 | 1. Journal of optoelectronics and Advanced Materials
 | 11 | 123-133 | 2009 | 0.52 |
| [V.Krishnakumar](http://www.epjap.org/component/option%2Ccom_intuition/task%2Coutput/subtask%2Cauthors/id_author%2C1827244/lang%2Cen/), [L.GuruPrasad](http://www.epjap.org/component/option%2Ccom_intuition/task%2Coutput/subtask%2Cauthors/id_author%2C1827245/lang%2Cen/), [R.Nagalakshmi](http://www.epjap.org/component/option%2Ccom_intuition/task%2Coutput/subtask%2Cauthors/id_author%2C1827246/lang%2Cen/) | 1. **Investigation on 3-aminophenol: a nonlinear optical crystal for frequency doubling**
 | 1. Eur. Phys. J. Appl. Phys.
 | 48 2 | 20403 | 2009 | 0.789 |
| Devang A. Joshi, R. Nagalakshmi, R. Kulkarni, S.K. Dhar, A. Thamizhavel | 1. Crystal growth and anisotropic magnetic properties of Rag2Ge2 ([R=Pr](http://www.sciencedirect.com/science?_ob=MathURL&_method=retrieve&_udi=B6TVH-4WNXV06-D&_mathId=mml8&_user=1562340&_cdi=5535&_rdoc=1&_acct=C000053730&_version=1&_userid=1562340&md5=aebc417ecf149f37a03e456f587f568c), Nd and Sm) single crystals
 | 1. Physica B [Condensed Matter](http://www.sciencedirect.com/science/journal/09214526).
 | 404(19) | 2988 | 2009 | 1.276 |
| Devang A. Joshi, R. Nagalakshmi, S.K. Dhar, A. Thamizhavel | 1. Anisotropic magnetization studies of *R*2CoGa8 single crystals (*R*=Gd, Tb, Dy, Ho, Er, Tm, Y, and Lu)
 | 1. Physical Review B
 | 77 | 174420 | 2008 | 3.767 |
| V.Krishnakumar, R. Nagalakshmi, and S.Manohar | 1. Crystal growth and characterization of N- Hydroxyphthalimide (C8H5NO3) crystal
 | 1. Spectrochim Acta A.
 | 71 | 110-115 | 2008 | 2.129 |
| V.Krishnakumar, R. Nagalakshmi, and S.Sivakumar | 1. Investigations on the physicochemical properties of the nonlinear optical crystal for blue green laser generation
 | 1. Spectrochim Acta A.
 | 71 | 119-124 | 2008 | 2.129 |
| V.Krishnakumar and R.Nagalakshmi | 1. Studies on the first order hyperpolarizability and terahertz generation in 3-nitroaniline
 | 1. Physica B: Physics of Condensed Matter.
 | 403 | 1863-1869 | 2008 | 1.276 |
| V.Krishnakumar, G. Eazhilarasi, R. Nagalakshmi, M. Piasecki, I.V. Kityk and P. Bragiel | 1. Field-induced non-linear optical features of p-aminoazobenzene crystals
 | 1. European Physical Journal Applied Physics.
 | 42 | 263-267 | 2008 | 2.259 |
| V.Krishnakumar R.Nagalakshmi, and S.Manohar | 1. [Probes on l-lysine monohydrochloride dihydrate: A semiorganic nonlinear optical crystal](http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6VNG-4RKTNHJ-4&_user=2763128&_coverDate=01%2F16%2F2008&_alid=746862590&_rdoc=11&_fmt=high&_orig=search&_cdi=6178&_sort=d&_docanchor=&view=c&_ct=60&_acct=C000058740&_version=1&_urlVersion=0&_userid=2763128&md5=113f5f7a47d6c47dee30cbe7cc25ef38)
 | 1. Spectrochimica Acta.
 | 71 | 471-479 | 2008 | 2.129 |
|  **G. Eazhilarasi,** R. Nagalakshmi **and V. Krishnakumar** | 1. [Studies on crystal growth, vibrational and optical properties of organic nonlinear optical](http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6VNG-4RMFP4Y-2&_user=2763128&_coverDate=01%2F19%2F2008&_alid=746862590&_rdoc=9&_fmt=high&_orig=search&_cdi=6178&_sort=d&_docanchor=&view=c&_ct=60&_acct=C000058740&_version=1&_urlVersion=0&_userid=2763128&md5=96f1416db57807385c868b3b4dda7c91) crystal: p-Aminoazobenzene
 | 1. Spectrochimica Acta.
 | 71 | 502-507 | 2008 | 2.129 |
| V.Krishnakumar, R.Nagalakshmi, and S.Sivakumar | 1. [Effect of doping an organic molecule ligand on TGS single crystals](http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6VNG-4RMFP4Y-1&_user=2763128&_coverDate=01%2F19%2F2008&_alid=746862590&_rdoc=8&_fmt=high&_orig=search&_cdi=6178&_sort=d&_docanchor=&view=c&_ct=60&_acct=C000058740&_version=1&_urlVersion=0&_userid=2763128&md5=89802d0b09efefcba02fcf44e8c61eee)
 | 1. Spectrochimica Acta, A.
 | 71 | 482-285 | 2008 | 2.129 |
| V.Krishnakumar and R.Nagalakshmi  | 1. Terahertz generation in 3-Nitroaniline Single Crystals
 | 1. Crystal Growth and Design.
 | 8(11) | 3882-3884 | 2008 | 4.69 |
| V.Krishnakumar,D.K.Avasthi, Fouran Singh, P.K.Kulriya and R. Nagalakshmi | 1. Study of the damage produced in K [CS (NH2) 2] 4 Br non-linear optical single crystal by swift heavy ion irradiation
 | 1. Nuclear Inst. And Methods in Physics Research.
 | B256 | 675-682 | 2007 | 1.18 |
| V. Krishnakumar and R.Nagalakshmi | 1. Polarised Raman and infrared spectral analysis of L-alanine oxalate (C5H9NO6)- ) – a non-linear optical single crystal
 | 1. Spectrochim Acta.
 | A-64 | 736-743 | 2006 | 2.129 |
| V. Krishnakumar and R.Nagalakshmi | 1. Vibrational spectroscopic studies of an organic non-linear optical crystal 8-hydroxyquinolinium picrate
 | 1. Spectrochim Acta A.
 | 66 | 924-934 | 2006 | 2.129 |
| V.Krishnakumar and R.Nagalakshmi | 1. Crystal growth and characterization of K[CS(NH2)2]4Br – a semiorganic non-linear optical crystal
 | 1. Spectrochim Acta A .
 | 68 | 443-453 | 2006 | 2.129 |
| V.Krishnakumar, and R.Nagalakshmi | 1. Growth and spectroscopic characterization of a new organic non linear optical crystal-8-hydroxyquinoline
 | 1. Spectrochim Acta A
 | 61 | 1097-1103 | 2005 | 2.129 |
| V.Krishnakumar, and R.Nagalakshmi | 1. Growth and vibrational spectroscopic studies of yttrium doped single crystals of trisodium barium pentachloride dihydrate
 | 1. Spectrochim Acta A.
 | 61 | 2724-2729 | 2005 | 2.129 |
| V.Krishnakumarand R.Nagalakshmi | 1. Polarised infrared and Raman studies of Yca4O(BO3)3 – a non-linear optical single crystal
 | 1. Spectrochim Acta A.
 | 60 | 2733-2739 | 2004 | 2.129 |
| V.Krishnakumarand R.Nagalakshmi | 1. Crystal growth and vibrational spectroscopic studies of the semi organic non-linear optical crystal – Bisthiourea zinc chloride
 | 1. Spectrochim Acta A.
 | 61 | 499-507 | 2004 | 2.129 |

**(B)** **Conferences/Workshops/Symposia Proceedings**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Author(s)** | **Title of Abstract/ Paper** | **Page numbers** | **Conference Theme** | **Year** |
| R. Nagalakshmi , V.Krishnakumar, Hans Hagemann, S.Muthunatesan | Polarized Raman and hyperpolarizability studies of hydroxyethylammonium (L) tartrate monohydrate for quadratic nonlinear optics | 1200 – 1201 | AIP Conference Proceedings  | 2010 |
| V. Krishnakumar, L. Guru Prasad, R. Nagalakshmi, and Hans Hagemann | Vibrational studies of the NLO crystal – 2,4- Dinitrophenol | 1. 1198 – 1199
 | AIP Conference Proceedings | 2010 |
| T. Pandiyarajan, R. Nagalakshmi, B. Karthikeyan | Optical and vibrational studies of surface modified ZnO nanostructures |  8094 | Proc. Of SPIE | 2011 |
| N.Sudharsana, R.Nagalakshmi, V.Krishnakumar , A.Sharma, R. Fausto,T. N. Guru Row ,RumpaPal | Vibrational and third-order nonlinear optical study on hydroxyethylammonium picrate (HEAP) single crystals | 1263 | AIP Conference Proceedings | 2012 |
| P.Srinivasan, R.Nagalakshmi, Dmitry Isakov, Etelvina de Matos Gomes, Michael Scott Belsley and S.Prabu | Ruminations on the effect of MeV Si8+ and Ag8+ ion irradiation on nonlinear optical l-Valinium picrate single crystals | 695-700 | AIP Conference Proceedings | 2012 |

**21. Establishment of facilities**

1. Establishing crystal growth facilities for organic and rare earth intermetallic systems . (Solution, Melt and Flux growth techniques).
2. Low temperature Transport measurements (8-300K).
3. Tri arc furnace for Rare based alloys

**Exposure to scientific equipments and software**

1. Perkin Elmer Spectrometer model RX1 and the software Spectra V2.00
2. UV Spectrophotometer
3. X-Ray – Laue back reflection method for orienting the single crystals and cutting
4. X-ray rocking curve
5. Vibrating Sample Magnetometer (VSM)
6. Superconducting quantum interference device (SQUID)
7. Resistivity at low temperatures – four probe (1.8K-300K)
8. Specific Heat capacity at low temperatures – semi adiabatic pulse method (1.8K-300K)
9. Physical Property Measurement Systems.
10. GAUSSIAN 16, FULLOROF, GSAS, CRYSTAL 09

**Extra-curricular activities**

Attended the Outbound Experiential Learning Camp for Team Building and Group Dynamics conducted by Adventure Zone (ISO 9001:2008) during 11-12 February, 2013

 **Academic/Administrative Responsibilities outside the University**

|  |  |
| --- | --- |
| **Position** | **Institution** |
| Doctoral committee member | Anna University of Technology, Tiruchirappalli |
| University College of Engineering, Panruti |
| Bharathidasan University, Tiruchirappalli |
| Anna University of Technology, Tiruchirappalli |
| Periyar University, Salem |
| Karpagam Academy of Higher Education, Coimbatore |
| Thesis Examiner(Ph.D/M.Sc/M.Phil) | Anna University of Technology, Tiruchirappalli |
| University of Kerala |
| Question paper Setting and Evaluation  | Bharathidasan University, TiruchirappalliKalasalingam University, Virudhunagar |
| Board of Studies Member | Holy Cross College, Trichy |