

# Curriculum Vitae



## PERSONAL INFORMATION

Surname / First name :	<b>DAGUR, Deepak</b>
Address :	<b>Via Giulio Solitro 8/1, Trieste (Italy) - 34135</b>
Telephone :	<b>+39 3512291145</b>
E-mail :	<a href="mailto:dagur@iom.cnr.it">dagur@iom.cnr.it</a>
Skype :	<b>live:.cid.ba1d53fa767ac7c8</b>
Nationality :	<b>Indian</b>
Date and place of birth :	<b>6<sup>th</sup> November 1997 - Vadodara (Gujarat), India</b>

## SUMMARY:

I'm a Ph.D. student of nanotechnology field in physics, conducting research in the field of magnetism, where my creative initiative, ideas, and a genuine enthusiasm allows me to do progress.

A physics graduate with proven experience in experimental and theoretical concepts of related fields, who combine studies with working and other commitments. I have shown myself to be self-motivated, committed and determined in achieving my goals, come what may. I possess excellent verbal and communication skills and am to relate to a wide range of people, as proven by my varied work experience.

## UNIVERSITY STUDIES:

- **Name of organization :** (NFFA) CNR-IOM, University of Trieste, Italy

**Period :** November 2020 - Present

**Title of qualification :** PhD (3-years) in Nanotechnology

**Final degree mark :** Result-Awaited

**Thesis title :** Tuning of magnetoelectric coupling in multiferroic heterostructures

**Thesis supervisors :** Dr. Piero Torelli

- **Name of organization :** Amity University Noida, UP, India

**Period :** June 2018 – July 2020

**Title of qualification :** Master of Science (2-years) in Applied Physics

**Final degree mark :** 8.73 CGPA (87.3%)

**Thesis title :** Correlations of Exchange Bias with Spin Disorder in Nanocrystalline Iron Oxides

**Thesis supervisors :** Dr. Ravi Kant Choubey, Dr. Samrat Mukherjee

- Name of organization :** Govt. Gandhi Memorial Science College,  
University of Jammu  
**Period :** June 2015 – June 2018  
**Title of qualification :** Bachelor of Science (3-years) - General  
**Final degree mark :** 62%  
**Final year project title :** Designing of a Flashing L.E.D using 555 timer IC  
**Thesis supervisors :** Dr. Rakesh Prasher  
**Project performed at :** Electronics Lab, GGM Sc. College Jammu

### SCHOOL STUDIES:

- Name of organization :** Kendriya Vidyalaya No 1 AFS Jodhpur, Raj., India  
**Period :** March 2014 - March 2015  
**Title of qualification :** Senior School Standard in Science  
**Final certificate mark :** 72.5%  
**Major subjects :** Physics, Chemistry, & Mathematics.
- Name of organization :** Kendriya Vidyalaya No 1 AFS Jodhpur, Raj., India  
**Period :** March 2012 - March 2013  
**Title of qualification :** Secondary School Standard  
**Final certificate mark :** 79.8%

### TECHNICAL SKILLS AND COMPETENCIES:

- Technical skills and competences:**
- Molecular Beam Epitaxy for thin films
  - Co-precipitation method for synthesis of nanoparticles
  - Ball milling method for synthesis of nanoparticles
  - X-Ray diffraction
  - HR-Transmission electron microscopy
  - Scanning electron microscopy
  - X-Ray photoelectron spectroscopy
  - X-Ray absorption spectroscopy
  - X-Ray magnetic circular dichroism
  - X-Ray linear dichroism
  - Magneto-optic Kerr effect
  - Superconducting quantum Interference Device
  - Vibrating Sample magnetometer study
- Computer skills and competences:**
- Microsoft Windows and MacOS X
  - Microsoft Office tools (Word, Excel, PowerPoint)
  - Web surfing (Internet explorer, google chrome, safari) and e-mail (Outlook)
  - Adept with SciLab, C++, Daz3D
  - GSAS Software (Rietveld Refinement)
  - OriginLab for Data Analysis

- Social skills and competences:**
- Ability to comfortably work in group
  - Good communication skills and Adaptability
  - Good ability to interact with technical and scientific staff members at various levels
  - Eminent written and verbal Communications

## PROFESSIONAL SKILLS AND COMPETENCIES:

**Mother Tongue : Hindi**

**Other Languages : English (European C2 Level)**

- **Read :** GOOD
- **Written :** GOOD
- **Spoken :** GOOD

**French (European B2 Level)**

- **Read :** MODERATE
- **Written :** MODERATE
- **Spoken :** MODERATE

## PARTICIPATION IN SCHOOLS/ CONFERENCES / SCIENCE MEETS:

- **Type of School :** International

**Name of School :** 1<sup>st</sup> NFFA Europe Pilot Training School

**Organized by :** International Iberian Nanotechnology Laboratory (INL) and Foundation for Research and Technology (FORTH)

**Period :** 27 and 28 September 2022

**Theme of the school :** *Fine-analysis tools for nano-characterization*

**Place :** Braga, Portugal

- **Type of School :** International

**Name of School :** European School on Magnetism (ESM)

**Organized by :** European Magnetism Association (EMA) and University of Saarland

**Period :** 11 – 23 September 2022

**Theme of the school :** *Basic Magnetism for Sustainable Development*

**Place :** Saarbrücken, Germany

- **Type of School :** International

**Name of School :** 5<sup>TH</sup> International Doctoral Summer School

**Organized by :** Vytautas Magnus University

**Period :** 17 – 19 August 2022

**Theme of the school :** *Being strong in research methodology in a sustainable world*

**Place :** Online platform (Zoom)

- |                             |   |
|-----------------------------|---|
| <b>Type of Conference :</b> | <b>International</b>  |
| <b>Name of Conference :</b> | <b>Joint European Magnetic Symposia (JEMS)</b>  |
| <b>Organized by :</b>       | European Magnetism Association and University of Warsaw                               |
| <b>Period :</b>             | 24 - 29 July 2022   |
| <b>Title of Talk :</b>      | <i>Light-induced magnetic modifications in PMN-PT/Ni multiferroic heterostructure</i> |
| <b>Place :</b>              | Warsaw, Poland  |

- |                             |  |
|-----------------------------|--|
| <b>Type of Conference :</b> | <b>International</b>   |
| <b>Name of Conference :</b> | <b>CrossNano CrossBorder Workshop in Nanoscience and Nanotechnology</b>  |
| <b>Organized by :</b>       | University of Trieste, Jožef Stefan International Postgraduate School, Jožef Stefan Institute, and University of Ljubljana |
| <b>Period :</b>             | 22 - 24 February 2022  |
| <b>Title of Talk :</b>      | <i>Light-induced magnetic modifications in multiferroic heterostructures</i>   |
| <b>Place :</b>              | Online platform (MS Teams)   |

- |                             |  |
|-----------------------------|--|
| <b>Type of Conference :</b> | <b>International</b>   |
| <b>Name of Conference :</b> | <b>The 2021 Around-the-Clock Around-the-Globe Magnetics Conference</b>   |
| <b>Organized by :</b>       | IEEE Magnetics Society   |
| <b>Period :</b>             | 24 - 25 August 2021  |
| <b>Title of Talk :</b>      | <i>Photostrictive/photovoltaic effects on magnetostrictive films in multiferroic heterostructures under UV light</i> |
| <b>Place :</b>              | Online platform (Zoom and Gather)  |

- |                             |  |
|-----------------------------|--|
| <b>Type of Conference :</b> | <b>International</b>   |
| <b>Name of Conference :</b> | <b>CrossNano CrossBorder Workshop in Nanoscience and Nanotechnology</b>  |
| <b>Organized by :</b>       | University of Trieste, Jožef Stefan International Postgraduate School, Jožef Stefan Institute, and University of Ljubljana |
| <b>Period :</b>             | 23 - 25 February 2021  |
| <b>Title of Talk :</b>      | <i>Photostrictive/photovoltaic effects on magnetostrictive films in multiferroic heterostructures under UV light</i>       |
| <b>Place :</b>              | Online platform (MS Teams)   |

- |                             |   |
|-----------------------------|---|
| <b>Type of Conference :</b> | <b>International / Amity University Noida</b>                 |
| <b>Period :</b>             | 2 - 3 February 2019   |
| <b>Title of Talk :</b>      | <i>Efficient Solar Power Generation and Energy Harvesting</i> |
| <b>Place :</b>              | Amity University Noida, UP, India                             |

- |                             |   |
|-----------------------------|---|
| <b>Type of Conference :</b> | <b>International / Student by JSCOP</b> |
| <b>Period :</b>             | 4 - 9 November 2018                     |
| <b>Title of Talk :</b>      | <i>Optics and Photonic Devices</i>      |

**Place :** Jaypee Institute of IT Noida, UP, India

• **Type of Conference :** National / Rajkiya Eng. College

**Period :** 6 - 7 September 2019

**Title of Talk :** *Computational and Characterization Techniques in Engineering & Sciences*

**Place :** Rajkiya Eng. College Ambedkar Nagar, UP, India

### RESEARCH INTERESTS:

- Magnetic nanocomposites, thin films and Quantum dots
- Multiferroic heterostructures
- Nano-scale magnetic/optical/dielectric properties
- Magnetostrictive/Photostrictive Actuators and Sensors
- Laser driven memory devices
- Spintronic devices, etc.

### NON-SCIENTIFIC INTERESTS & HOBBIES:

- Reading novels
- Solving Puzzles
- Public Speaking
- Travelling to new places, etc.

### PUBLICATIONS:

- **Physica Scripta** : [Evidence of large exchange bias effect in single-phase spinel ferrite nanoparticles]. *Physica Scripta*, **95** 095812  
DOI: <https://doi.org/10.1088/14024896/abaf90>
- **Physical Review Applied** : [All-optical generation and time-resolved polarimetry of magneto-acoustic resonances via Transient Grating spectroscopy].  
DOI: <https://doi.org/10.1103/PhysRevApplied.18.044009>
- **Advanced Materials Interfaces** : [Visible Light Effects on Photostrictive/Magnetostrictive PMN-PT/Ni Heterostructure].  
*Status – “Accepted”*
- **Applied Surface Science** : [Electronically ordered ultrathin Cr<sub>2</sub>O<sub>3</sub> on Pt(111) in presence of a multidomain Gr intralayer]  
*Status – “Under Review”*

## REFERENCES:

<ul style="list-style-type: none"><li>• <b>Dr. Piero Torelli, PhD</b> CNR-IOM Researcher at S.S. 14, km 163.5 IOM-CNR, Trieste 34149 Basovizza, Trieste ITALY Tel: +39 040 3756457 (8075) E-mail: <a href="mailto:torelli@iom.cnr.it">torelli@iom.cnr.it</a></li></ul>
<ul style="list-style-type: none"><li>• <b>Dr. Giovanni Vinai, PhD</b> CNR-IOM Researcher at S.S. 14, km 163.5 IOM-CNR, Trieste 34149 Basovizza, Trieste ITALY Tel: +39 040 3756457 (8075) E-mail: <a href="mailto:vinai@iom.cnr.it">vinai@iom.cnr.it</a></li></ul>
<ul style="list-style-type: none"><li>• <b>Dr. Samrat Mukherjee, PhD</b> Department of Physics, Associate Professor of National Institute of Technology, Patna National Institute of Technology, Patna Address: Flat No. – 402, Type – IV, NITP, India Tel: +91 9771005232 E-mail: <a href="mailto:Samrat.udc@gmail.com">Samrat.udc@gmail.com</a></li></ul>