

# Gaurav Pandey

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## Education

- 2013 – present    **Ph.D. Student, IIT Guwahati, India** in Biosciences and Bioengineering. (Cumulative Grade Point 9/10)  
Thesis title: *Effects of Physical and Chemical Perturbants on Aggregation and Nano-Scale Self-Assembly of Peptides*. Under the Supervision of Dr. Vibin Ramakrishnan and Dr. Nitin Chaudhary.
- 2011 – 2013    **M.Tech. Bioinformatics, University of Hyderabad, India** (Cumulative Grade Points Average 9.31/10).  
Thesis title: *Meta-Analysis of Epigenetic and Gene Expression Signatures Identifies Novel Regulators of Embryonic Stem Cell Identity*. Under the Supervision of Dr. Sailu Yellabolina (CR Rao AIMSCS). *First Class with Distinction*.
- 2007 – 2011    **B.Tech. Biotechnology, Gautam Buddha Technical University, India.**  
*First Class with Distinction (81.060%)*.
- 2005 – 2007    **Senior Secondary (Grade 10 + 2), First Class with Distinction (87.775%).**  
Indian School Certificate
- 2004 – 2005    **Higher Secondary (Grade 10), First Class with Distinction (85.400%).** In-  
dian Certificate of Secondary Education

## Research Interests

- Peptide Self-Assembly and Amyloid aggregates, Peptide Based Drug Design and Development, Peptide Based Bio-Nano Assemblies and Functional Peptide Design.

## Research Publications

- 1) Gaurav Pandey, Jahnu Saikia, Sajitha Sasidharan, Deep C. Joshi, Subhash Thota, Harshal B. Nemade, Nitin Chaudhary, and Vibin Ramakrishnan.  
**Modulation of Peptide Based Nano-Assemblies with Electric and Magnetic Fields.** *Scientific Reports*. doi:10.1038/s41598-017-02609-z

## Patents Filed

- 1) **Inventors:** Vibin Ramakrishnan, Gaurav Pandey, Harshal B. Nemade, Jahnu Saikia, Sajitha S, and Nitin Chaudhary.  
**Patent No.** TEMP/E-1/25296/2017-KOL. Dated 13.07.2017  
**Office:** Controller of Patents, Kolkata.
- 2) **Inventors:** Vibin Ramakrishnan, Sajitha S, Nitin Chaudhary and Gaurav Pandey.  
**Patent No.** 243/KOL/2015. Dated 09.03.2015  
**Office:** Controller of Patents, Kolkata.

**3) Inventors:** Vibin Ramakrishnan, Sajitha S, Nitin Chaudhary and Gaurav Pandey.  
**Patent No.** Patent No. 201631011471 Dated 31.03.2016  
**Office:** Controller of Patents, Kolkata.

## Bioinformatics Skills

|                               |  |
|-------------------------------|--|
| Languages                     | ■ C,Python*, R*, Perl, $\text{\LaTeX}$ .<br>*Elementary Proficiency  |
| Operating Systems             | ■ Windows, Linux, Mac.   |
| Public Domain Knowledge       | ■ NCBI, RCSB, PDB-SUM, Swiss-Prot.   |
| Sequence Analysis Softwares   | ■ BLAST, FASTA, Clustal W, Sequin  |
| Molecular Dynamics Simulation | ■ Gromacs.<br>■ Docking and QSAR Studies] Gold, SybylX.<br>■ Molecular modeling and visualization] Swiss-Modeller, Py-mol, Rasmol, Avogadro, Chimera, Discovery Studio, Material Studio. |
| Web Dev                       | ■ HTML, CSS.   |
| Misc. Softwares               | ■ Chems sketch, ProCheck, RAST, Cytoscape, Pross, Ribosome.  |

## Technical Skills

|                        |   |
|------------------------|---|
| Organic Synthesis      | ■ Solid Phase Peptide Synthesis.  |
| Biophysical Techniques | ■ Spectroscopy (UV-Vis, Fluorescence, IR, CD, Raman), HPLC, AFM, Powder XRD, ITC. |

## Miscellaneous Experience

### Presentations/Conferences/Workshops Attended

- 2017 ■ **Poster Presented**, at National Workshop on Fluorescence and Raman Spectroscopy, IIT Guwahati.  
■ **Oral Presentation**, at International Conference on Advances in Biological Systems and Materials Science in NanoWorld, IIT BHU.
- 2016 ■ **Poster Presented**, at Research Conclave, IIT Guwahati.  
■ **Workshop Attended**, National Workshop on Advanced Probing Techniques in TEM, IIT Guwahati.
- 2015 ■ **Workshop Attended**, IuCr Workshop on X-Ray Diffraction Systems and Related Applications, IIT Guwahati.
- 2013 ■ **Poster Presented**, at UoH-Academia Sinica Joint Workshop on Frontiers in Biological Sciences, University of Hyderabad.
- 2012 ■ **Poster Presented**, at Indo-German Symposium on Systems Biology, University of Hyderabad.  
■ **Poster Presented**, Association of DNA Fingerprinting and Associated Technologies (ADNAT) Convention, CR Rao AIMSCS.

