



Arpan Ojha

Roll Number : 14010121008
B.Tech - Engineering Physics with minor in ECE
Indian Institute of Technology Guwahati

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Education

Degree/Certificate	Institute/Board	CGPA/Percentage	Year
B.Tech	Indian Institute of Technology, Guwahati	7.19 (Major)/8.33(Minor) (Current)	2014 - Present
Senior secondary	CBSE board	95.2%	2014
Secondary	CBSE board	10.0	2012

Experience and Internships

- **Software Developer and Product Engineer at Space Applications Centre** *May 2016 - July 2016*
(1) Realtime testing (software and hardware) on CMOS sensor camera on a SBC (RPI).
(2) Developed a working prototype for Vehicle Number Plate Recognition using Machine Learning and CNN on Single Board Computer(SBC) .
- **Android App Developer at HCL , Chennai** *June 2015 - July 2015*
Designed and Developed 8 android apps with HCL CDC
- **Robotics and Team work**
Technical and workspace proficiency of working with a team on 6 different projects
- **Media Work**
Single Handedly managed a deal with Qualcomm USA to supply Dragonboards worth 350\$ shipped for the very first time to India .

Summary and SOP

As an Physics student and software enthusiast I have a keen grasp on fundamentals that apply to most of the modern day topics such as Artificial Intelligence (A.I.) and Aerospace Technologies . You will find that I have repeatedly tried to prove myself in the every field that I work in . I have a passion for working in Aerospace Technologies . I believe in leadership and a work ethic that develops by supporting my colleagues / seniors .I am a strong believer of punctuality and

collective effort(Team work). Given the opportunity would very much like the chance to work for you .

Projects

- **Automatic License Plate Recognition on SBC** *May 2016 - July 2016*
Senior Sci. Arup Banerjee, Head SFSD ISRO
Developed License Plate detection and recognition using Machine Learning and CNN on Tesseract OCR and Onboard GPU using Open MP
- **Interfacing two CMOS sensor Cameras to SBC (RPI)** *May 2016 - July 2016*
Sci. Parul Singh and Vishal S. , SFSD ,ISRO
Interfaced Satellite Cameras to SBC for Realtime testing for standalone payloads
- **Veinfinder (working prototype)** *August 2016*
Graphical interface and Hardware developed for a Low cost *https://youtu.be/q_cTsa6Frgk*
Veinfinder .
- **Robotic Arm (working prototype)** *April 2016*
Arm developed with 3 DOF and 3D printed grabber capable of dynamic grasp .
- **SLAER (working prototype)** *February 2016*
Smart and completely Autonomous Line Follower that uses Dijkstras Algorithm for efficiency built with a team of four . *<https://youtu.be/aa1a5rL9t6s>*
- **Pan Tilt Camera for Missile Approach Warning System (final stages)**
Developed a realtime pan tilt camera (hardware and software) along with student from Damascus University ,Syria.
- **Miniproject for Simulation (finished)**
Simulated a steel chipping animated video on blender . Link : <https://youtu.be/IS-AI-dX0wE>

Technical skills

- **Programming languages** : C,C++, Python, Java , VHDL *, OpenMP , Verilog *
- **Web technologies** : HTML, CSS*, Javascript*.
- **Database management** : MySQL, Azure *.
- **Miscellaneous** : Android programming *,COMSOL Multiphysics , Advanced Matlab , Arduino ,8085 ,CUDA* , Solidworks , Microsoft Word, Excel and Powerpoint .
- **Operating system** : Windows, Linux (Ubuntu , Fedora , CentOS * and RHEL), MacOS
** Still developing*

Key courses taken

- Astronautics and Human Space Flight(Edx)
- Advanced calculus

- COMSOL Multiphysics 5.0(Workshop)
 - Electromagnetic field and Antenna Theory
 - Microprocessor Architecture
 - Computational Physics
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Positions of Responsibility

- Media and Public Relations Head , Robotics Club IITG
 - Moderator , Guest / Speaker Relations , Tedx IIT Guwahati
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Achievements

- **Joint Entrance Examination 2014** : Secured All India Rank 3010 among 0.15 million candidates appearing for the test.
 - **KVPY 2013-14,2012-2013** : secured a position in top 1%.(ranked below 800 both times)
 - **Robothon(s)** : Top position in following stages :
 1. Qualifiers stage(Robothon Kolkata) : Bagged first position in the North East region representing IIT Guwahati
 2. National level(Robofest , IIIT Hyderabad) : Bagged 1st position among 25 top teams while representing IIT Guwahati .
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Extra Curriculars

- **Teaching** : Lecturer at Arduino workshop for over 300 peers on behalf of Robotics and electronics Club *September 2015*
 - **Judging** : Judged in a panel of four for selecting the top among 59 Schools shortlisted by INTEL for setting up a tinkering lab in the North East . *November 2016*
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(References available on request)

Senior Scientist . Sri Arup Banerjee : <https://in.linkedin.com/in/arup-banerjee-15004567>

Assistant Professor Tapan Mishra : <http://www.iitg.ernet.in/mishratapan/>