

SUNNI KANTA PRASAD KUSHWAHA

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D.O.B: 30.07.1992

GENDER: MALE

NATIONALITY: INDIAN

LANGUAGES KNOWN: ENGLISH, HINDI AND TELUGU

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Objective:

To secure a position where I can use my knowledge and skills for my individual growth and for the Organization growth.

Academic records:

Course	University/Board	College/School	Year of Study	% of Marks
PhD (Geomatics Group – Civil Department)	Indian Institute of Technology - Roorkee	Indian Institute of Technology – Roorkee	2018 - present	9.143
M.Tech (Remote Sensing and Geographic Information System)	Andhra University	Indian Institute of Remote Sensing, ISRO	2016-2018	7.84 (CGPA) Distinction
B.E (Electronics and Communication Engineering)	Andhra University	Raghu institute of Technology	2010-2014	7.23(CGPA) 1 st Class
12 th Senior Secondary	Andhra Pradesh Board of Intermediate Education	Sri chaitanya Jr college	2008-2010	89.3 1 st Class
10 th High School	Central Board of Secondary Education	Ramanath Secondary School	2008	74.6 1 st Class

My Strength and Skills:

- Hard Working, Proactive and can work under pressure.
- A quick learner with abilities to work in a team.
- Punctual and adoptable to situations, Credit sharing and managing abilities.
- Organized and consistent.

Other Interest:

- Playing Table Tennis, Badminton, Cricket, Football, kho-kho.
- Drawing and Painting.

Achievements and Co-Curricular Activities:

- Participated in many ROBOTIC events and secured Good position.
- Participated in central zone conducted by Andhra University (AU).
- Won prizes in table tennis, badminton kho-kho, cricket, football, running.
- Active marathon runner.
- Active participation in social events.

Project (Bachelor of Technology):

Mini Project: Undergone training and acquired knowledge about studio equipment's, transmitter and receiver in All India Radio (AIR)

Main Project: Optimization of fidelity using Digital water marking technique.

Project (Master of Technology):

Title: 3D Documentation and Condition Assessment of Surface and Subsurface of Engineering Structure.

Sub objectives: To extract geometric information of the Engineering structure
To integrate TLS, CRP and GPR datasets.
To analyze surface and subsurface condition of the Engineering structure.

My expertise:

Instrumental skills	Software skills	Programming skills
Terrestrial Laser Scanner (TLS) Mobile Laser Scanner (MLS) Ground Penetrating Radar (GPR) Close Range Photogrammetry (CRP) Differential Global Positioning System (DGPS) Hand Held GPS Total Station Laser Distometer Infrared Thermometer Unmanned Aerial Vehicle (UAV)	Lastools, Cloud Compare, AutoCAD, 3D- Forest, LiForest, LiDAR360, Meshlab, VisualSFM, Agisoft Photoscan, Pix4D Mapper, Global Mapper, PhotoMOD UAS, UAS master, eCognition, Erdas Imagine, ENVI, ENVI LiDAR, ArcMAP, ArcSCENE, Quantum GIS (QGIS) TBC- Trimble Business Centre, GRED HD, Riscan PRO	Python, C++ (Point Cloud Library), R, MATLAB, Basics of C,

Experience:

Organization/Work Place	Time Period	Designation	Work Description
Bharat Dynamics Limited (BDL-Visakhapatnam)	1 Year (5.5.2015 to 4.5.2016)	Graduate Apprenticeship	Missile and Torpedo Integration, System checks.
Indian Institute of Technology (IIT-Roorkee)	6 months (1.7.2018 to 26.12.2018)	Research Associate	UAV & Lidar data acquisition, processing and analysis. Instrumentation and GIS.

Certification Course and Workshop:

- Close Range Photogrammetry and Terrestrial Laser Scanning – 8th to 12th January, 2018.
- Google Earth Engine Training – 23rd February, 2018.
- Research Reference and Bibliography Management – 16th March, 2018.
- RS and GIS application in water Resources – 16th to 27th April, 2018.
- Geospatial Modelling for Watershed Management – 1st to 7th May, 2018.
- Remote Sensing Technology – 20th to 30th August, 2018.
- Autodesk – AUINDIA 2018 – 11th September, 2018.
- Deep Learning and Application – 27th to 31st May, 2019.
- Data Analytics with Python – 18th to 22nd June, 2019.
- Summer School on Computer Vision and Machine Learning – 1st – 13th July, 2019.

Journal Reviewer:

1. Journal of Applied Remote Sensing (JARS).
2. Journal of Electronic Imaging (JEI).
3. Optical Engineering (OE).

Memberships:

1. IEEE student and IEEE Geoscience and Remote Sensing Society – Individual Annual Membership (95398046).
2. International Society for Photogrammetry and Remote Sensing Society (ISPRS) – Individual Annual Membership (62071).
3. SPIE – Student member (4199826).
4. CIPA Heritage Documentation – Regular Member.
5. Indian Society of Remote Sensing (ISRS) – Life Member (L-5284).
6. Indian Society of Geomatics (ISG) – Life Member (ISG-L-2221).
7. Pacific GIS & Remote Sensing Council (PGRSC) – Student member.
8. Space Generation Advisory Council (SGAC) – Student Member.

Awards and Scholarship:

1. **Travel Grant** support by Mohammed Bin Rashid Space Centre (MBRSC) to attend Young Professional in Space Conference 2019 (YPinSpace) 4th – 6th November, 2019 in Dubai, United Arab Emirates.
2. **Scholarship** of €700 for the EduServ18 e-learning courses and **Travel Grant** Support of €500 to attend pre-course seminar 2nd - 3rd March, 2020 at the ENSG premises in Marne-la-Vallée, France

Research Publications:

1. “3D Digital Documentation of a Cultural Heritage site using Terrestrial Laser Scanner – A case study” – *An International Conference on Geomatics in Civil Engineering [ICGCE-2018]*, April 05-06, 2018, India. (https://doi.org/10.1007/978-981-13-7067-0_3)
2. “Role of Ground Control Points (GCP’s) in integration of Terrestrial Laser Scanner (TLS) and Close Range Photogrammetry (CRP)” – *An International Conference on Geomatics in Civil Engineering [ICGCE-2018]*, April 05-06, 2018, India. (https://doi.org/10.1007/978-981-13-7067-0_42)

3. “Digital Documentation, Bridge Deck Linearity Deformation and Deck Thickness Measurement using Terrestrial Laser Scanner (TLS) and Close Range Photogrammetry (CRP)” – *International Society for Photogrammetry and Remote Sensing (ISPRS) Technical Commission V Symposium on "Education & Outreach - Geospatial technology – Pixel to People*, November 20-23, 2018, India. (<https://doi.org/10.5194/isprs-annals-IV-5-47-2018>)
4. “Concrete Volume Loss Calculation of Structures Using Terrestrial Laser Scanner (TLS)” – *National Symposium on Advancements in Geospatial Technologies for Societal Benefits and Annual Conventions of Indian Society of Geomatics (ISG) & Indian Society of Remote Sensing (ISRS)*, December 5-7, 2018, India. (https://isgindia.org/wp-content/uploads/2019/12/Spc_sess_09_Concrete-volume-loss-calculation-of-structures.pdf)
5. “Backscattering and Coherence Analysis using Space Borne C-Band data for Forest Characterization” – *National Symposium on Advancements in Geospatial Technologies for Societal Benefits and Annual Conventions of Indian Society of Geomatics (ISG) & Indian Society of Remote Sensing (ISRS)*, December 5-7, 2018, India. (Under publishing procedure).
6. “A Semi-Automatic Approach for Roof-Top Extraction and Classification from Airborne LiDAR” – *Seventh International Conference on Remote Sensing and Geoinformation of Environment*, March 18-21, 2019, RSCy2019, Cyprus. (<https://doi.org/10.1117/12.2532044>)
7. “Forest degradation assessment using UAV optical photogrammetry and SAR data” – *1st International Conference on Unmanned Aerial System in Geomatics (UASG-2019)*, April 06-07, 2019, India. (Under publishing procedure).
8. “Unmanned Aerial Vehicle (UAV) for monitoring architectural health” – *1st International Conference on Unmanned Aerial System in Geomatics (UASG-2019)*, April 06-07, 2019, India. (Under publishing procedure).
9. “Building Facade and Rooftop Segmentation by Normal Estimation from UAV Derived RGB Point Cloud” – *6th International Workshop LowCost 3D – Sensors, Algorithms, Applications*, 2–3 December 2019, Strasbourg, France (<https://doi.org/10.5194/isprs-archives-XLII-2-W17-173-2019>).
10. “Analysis and Integration of Surface and Subsurface Information of Different Bridges” – *Journal of Indian Society of Remote Sensing*. (<https://link.springer.com/article/10.1007/s12524-019-01087-2>).

References:

- **Dr. Kamal Jain**
Professor, Geomatics Group - Civil Department,
Indian Institute of Technology, Roorkee, Uttarakhand, India.
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- **Mrs. Shefali Agrawal**
Scientist/Engineer- SG & Head, Photogrammetry and Remote Sensing Department, Indian
Institute of Remote Sensing, IIRS – ISRO. Dehradun, Uttarakhand, India.
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- **Dr. Hina Pande**
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Remote Sensing, IIRS – ISRO. Dehradun, Uttarakhand, India.
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- **Mr. Raghavendra S**
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