

Play, Study, Learn and Enjoy

Give your best in all the tasks!!!



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Currently, I, Dr Ajay Kumar, am working as Assistant Professor at the Department of Electronics and Communication at J.K. Institute of Applied Physics and Technology, University of Allahabad (Central Government University). Before joining the University of Allahabad, I was working as SCIENTIST I - EO (AI LABS) at Cropin Technology Solutions, Bengaluru, Karnataka, India. I worked there from 1 Sept 2021 to 26 Feb 2023 (one and a half year). I was working on "Discrimination of Crop Residues from Bare Soil, Vegetation, Burnt Areas" to reduce stubble-burning activities, especially in Punjab, India. It will also help to detect the farmer/human activity of land/farm and to detect other carbon-positive activity like carbon sink, no-tillage and mild tillage. I used multispectral data from Sentinel-2 and hyperspectral data from PRISMA for this purpose.

I did my PhD from the Department of Electrical Engineering at IITH under the supervision of Prof. P. Rajalakshmi. Before joining IITH from 1 Jan 2015 to 1 March 2023. During my PhD, I worked on "Techniques for Estimation of Crop Yield, Stress, and Flowering Stage using UAV-based Remote Sensing." I developed a technique to discriminate filled and unfilled rice grains of different varieties of aerobic rice. We have used the thermal property of filled and unfilled grain for this discrimination. We filed an Indian Patent on this, which is under process. I did my Post Graduation (MTech) from the Department of Electronics and Communication at the Indian Institute of Technology (Indian School of Mines) Dhanbad Jharkhand from July 2012 to May 2014. After finishing my Post Graduation from IIT (ISM) Dhanbad, I was looking to do research at any good institute. I got an opportunity to give an interview to Prof P Rajalakshmi at WiNet Lab, from the Dept of EE at IITH.

It was a great experience meeting with Prof P Rajalakshmi, and I got the chance to join her lab and IITH as Project Associate. I enjoyed the Deep Learning course by Dr Vineeth N Balasubramanian. There is nothing as such that enjoyed least.

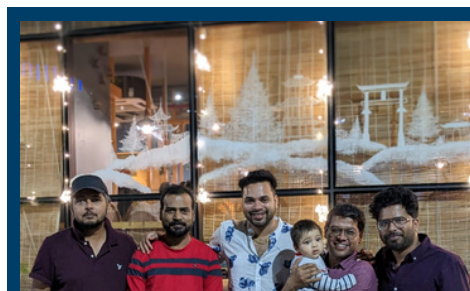
I did my PhD and research work at IITH. During this, I got training for so many things. I got a chance to learn how to fly a drone and acquire good-quality images and generate Orthomosaic and Digital Elevation Models using Agisoft Photoscan.

In my previous job at Cropin Technology Solutions, Bengaluru, Karnataka, India, I was doing crop monitoring using Satellite-based Remote Sensing. I got a basic understanding of remote sensing by doing UAV-based remote sensing, Python, Machine Learning, and Image & data processing at IITH. There are many moments. Almost all the moments with my best friends are the best moments. I miss my football matches and evening tea near the mess entrance with my friends.

I like the Infrastructure of IITH, and it is kept on surprising me every day. I would like to do any course once again and live a part of my life at this developed campus.

However, IITH should focus more on Mess-Food to improve its quality and PhD duration. PhD duration should be a maximum of 4 years, and it can be done if Professors have problem statements already defined and they have a plan for the student. They should involve more with PhD student activities related to their research.

Dr Ajay Kumar
PhD (2023)
Department of Electrical Engineering



The reason why I will always miss IITH



Convocation - IITH



The best thing I got from IITH

In PhD life, you do not get much time for other activities. We made our PhD football team for our relaxation and to release frustration. Many PhD students and other IITH staff joined us. We played a few matches with the football team of BTech. Students and Faculty. Our PhD football team helped a lot of research scholars to refresh their minds and charge up for their research work.