Yogender Yadav

Date of birth: 20/06/1996 | **Place of birth:** Rewari, India | **Nationality:** Indian | **Sex:** Male |

Phone: (+39) 3509081871 (Mobile) | **Email:** yogender105@gmail.com | **Website:**

https://yogiiverse.com/ | **LinkedIn:** https://www.linkedin.com/in/knappily/ |

Address: SDG 11 Lab, Viale Mattioli, 39, Politecnico di Torino, 10125, Torino, Italy (Work)

ABOUT MYSELF

As an expert in Urban Digital Twins, Point Clouds, and GeoInformatics, I specialize in creating dynamic 3D city models from Geospatial data and point clouds. My work focuses on developing comprehensive frameworks for employing point cloud data in complex urban environments.

WORK EXPERIENCE

12/2024 – CURRENT Cambridge , United States
INTERNSHIP HARVARD UNIVERSITY

- Working on Windows and geometric features extraction from aerial and terrestrial point cloud combinations
- Working on the development of Energy Digital Twins (EDT) for sustainable urban planning

Department Spatial Data Lab (SDL) | **Website** https://sdl.gis.harvard.edu/

11/2023 – 05/2024 Sydney, Australia
VISITING RESEARCHER UNIVERSITY OF NEW SOUTH WALES (UNSW)

- Implementation of Digital Twins for the city of Torino
- Design a methodology workflow for rooftop extraction from point clouds to aid solar panel installation and for the update of the facades of buildings

05/2023 – 08/2023 Roorkee, India
VISITING RESEARCHER INDIAN INSTITUTE OF TECHNOLOY (IIT)

- Worked on the creation of digital twins with UAV- sensor-based datasets and their update to time

11/2021 – 04/2022 Slovakia
VISITING RESEARCH SCHOLAR (ERASMUS+) TECHNICAL UNIVERSITY IN ZVOLEN

- Worked on research project "Applications of Unmanned Aerial Vehicles (UAV) photogrammetry and iPhone LiDAR for the forestry applications"

08/2021 – 09/2021 Baku, Azerbaijan
INTERNSHIP AZERCOSMOS

- Worked on project "Deforestation analysis of Tartar district in Azerbaijan with NDVI and random forest approach" with the Department of Earth Observation, Azercosmos

06/2019 – 07/2020 Chandigarh, India
ASSISTANT MANAGER ZOMATO MEDIA PVT LTD

- Led the B2B business team for the North India region from April'20 - July'20
- Managed the logistics operations in 20+ cities

05/2017 – 07/2017 Dehradun, India
INTERNSHIP INDIAN INSTITUTE OF REMOTE SENSING (IIRS), INDIAN SPACE RESEARCH ORGANIZATION (ISRO)

- Worked on generating a 3D Pointcloud by Structurefrom Motion-based CRP and TLS Techniques
- Worked on the assessment of the role of Ground Control Points in co-registration of CRP and TLS point clouds by point-pair selection methodology and automatic co-registration algorithm

EDUCATION AND TRAINING

11/2022 – CURRENT Torino, Italy
PH.D. RESEARCHER Politecnico di Torino

Website https://www.polito.it ┃ **Field of study** Urban and Regional Development ┃

Thesis Landscape goes Digital: 3D model production and implementation of Digital Twins for innovative Landscape Management

Link https://www.polito.it/personale?p=098663

08/2020 – 07/2022 Enschede, Netherlands
MASTER OF SCIENCE - M.SC. Faculty ITC, University of Twente

Website itc.nl ┃ **Field of study** Geoinformation Science and Earth Observation with specialization in Geoinformatics ┃

Final grade 7.61/10.00 ┃ **Type of credits** ECTS ┃ **Number of credits** 120 ┃

Thesis Hybrid adjustment of UAS-based LiDAR and image data

Link https://essay.utwente.nl/92137/

07/2015 – 06/2019 Kurukshetra, India
BACHELOR OF TECHNOLOGY IN CIVIL ENGINEERING National Institute of Technology (NIT)

Website https://nitkkr.ac.in/ ┃ **Field of study** Civil Engineering ┃ **Final grade** 7.92/10.00 ┃ **Type of credits** ECTS ┃

Number of credits 240 ┃ **Thesis** Effect of Search Methods on Feature Selection with Hyperspectral Data

LANGUAGE SKILLS

Mother tongue(s): **HINDI**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C2	C2	C2	C2	C2
ITALIAN	A1	A1	A1	A1	A1

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user

DIGITAL SKILLS

Python Language - Basic knowledge ┃ 3D-Modelling ┃ LIDAR, Photogrammetry, and UAV sensors and platforms ┃ Digital Twins ┃ Experience in MATLAB, python, and R

PUBLICATIONS

2024
Urban Echoes: Exploring the Dynamic Realities of Cities through Digital Twins

Land 2024, 13, 635

Link https://www.mdpi.com/2073-445X/13/5/635

2023
Hybrid adjustment of UAS-based LiDAR and image data

ISPRS GeoSpatial Week 2023, Cairo, Egypt

Link https://isprs-archives.copernicus.org/articles/XLVIII-1-W2-2023/633/2023/

2023
Integration of iPhone LiDAR with Quadcopter and fixed-wing UAV Photogrammetry for the Forestry Applications

2nd International GEOBENCH workshop, Krakow, Poland

2022
Deforestation analysis using Random Forest and interactive supervised classification approach

11th IGRSM International Conference and Exhibition on Geospatial & Remote Sensing 2022

2021
Effect of Search Methods on Feature Selection with Hyperspectral Data

IEEE International Symposium on Geoscience and Remote Sensing (IGARSS 2021), Brussels, Belgium

2020
Deep neural network-based predictive modeling of road accidents

International Journal of Neural Computing & Applications

2020
Role of Ground Control Points (GCPs) in Integration of Terrestrial Laser Scanner (TLS) and Close-range Photogrammetry (CRP)

Book chapter part of the Lecture Notes in Civil Engineering book series (LNCE,volume 33)

2019
A semi-automatic approach for roof-top extraction and classification from airborne lidar

Seventh International Conference on Remote Sensing and Geoinformation of the Environment (RSCy2019)

2017
Comparative Analysis of SfM Based CRP and TLS for 3D Modelling of Various Types of Surfaces

38th Asian Conference on Remote Sensing (ACRS 2017), New Delhi, India

NETWORKS & MEMBERSHIPS

2021 – CURRENT
IEEE Geosciences and Remote Sensing Society (GRSS)

2022 – CURRENT
ISPRS Student Consortium

2023 – CURRENT
CIPA Emerging Professionals (CIPA EP)

2022 – CURRENT
International Society for Photogrammetry and Remote Sensing (ISPRS)

VOLUNTEERING

01/2025 – CURRENT
Co Chair - CIPA Emerging Professionals (CIPA EP)

- Selected as Co-Chair for CIPA Emerging Professionals for the term 2025-26
- Lead the group of young professionals from around the world, who are interested in photogrammetry and remote sensing for cultural heritage documentation

Link https://www.cipaheritagedocumentation.org/cipa-ep/

06/2024 – CURRENT
Social Media Ambassador - IEEE Geosciences and Remote Sensing Society (IEEE GRSS)

- Develop, implement, and manage the social media strategy for IEEE GRSS
- Oversee and manage all social media content for IEEE GRSS
- Stay current with the latest trends and best practices in social media.

06/2022 – 01/2025
Website Administrator - ISPRS Student Consortium

- Elected as Board of Directors in ISPRS Student Consortium (ISPRS SC) for the position of website administrator
- Managed the updates on the ISPRS SC website to Link students, young researchers, and professionals in different countries, who are interested in photogrammetry, remote sensing, and spatial information sciences

Link https://sc.isprs.org/about/board/

01/2021 – 12/2021 University of Twente Enschede Netherlands
Student Representative, Faculty ITC Council

- Elected as Student Representative for Faculty Council - the highest student governing body at Faculty ITC
- Represented student interests to the university authorities for year 2021

07/2018 – 05/2019 Kurukshetra, India
Convener, Hiking and Trekking Club, National Institute of Technology (NIT)

- Selected as the Convener of the HTC club by a panel of professors for academic year 2018-19
- Planned the excursion and hiking trips for the faculty and Students from the university

RECOMMENDATIONS

Dr. Fabio Remondino Research Advisor

Master's research thesis advisor

Email remondino@fbk.eu

Prof. Sisi Zlatanova Research Advisor

PhD research thesis advisor

Email s.zlatanova@unsw.edu.au

Dr. Francesco Nex Research advisor

Master's research thesis advisor

Email f.nex@utwente.nl

Prof. Piero Boccardo Research Advisor

PhD research thesis advisor

Email piero.boccardo@polito.it

Dr. Bashar Alsadik Research Advisor

Master's research thesis advisor

Email b.s.a.alsadik@utwente.nl

Dr. Martin Mokros Internship Advisor

Master's research internship advisor

Email m.mokros@ucl.ac.uk

Dr. Mahesh Pal Research Advisor

Bachelor's research thesis advisor

Email mahesh.pal@nitkkr.ac.in

HONOURS AND AWARDS

11/2024
Travel support for ISPRS TC III Symposium 2024 Belem, Brazil – The International Society for Photogrammetry and Remote Sensing (ISPRS)

- Travel support by ISPRS to present paper in ISPRS TC III Symposium in Belem, Brazil from 4-8 November 2024
- Represented ISPRS Student Consortium (ISPRS SC) in the symposium and managed the ISPRS SC booth during the symposium

09/2023
Travel support for ISPRS Geospatial Week GSW 2023, Cairo Egypt – The International Society for Photogrammetry and Remote Sensing (ISPRS)

- Travel support by ISPRS to present paper in ISPRS GSW conference in Cairo, Egypt from 2-9 September 2023
- Represented ISPRS Student Consortium (ISPRS SC) at ISPRS SC youth forum for young students and researchers

03/2023
CIPA 2023 Spring School Scholarship – Rotary International Association - District 2071 Tuscany and the Rotary Club Firenze Sud

- Scholarship award by Rotary International Association - District 2071 Tuscany and the Rotary Club Firenze Sud to attend CIPA Spring School 2023

07/2020
ITC Excellence Scholarship – University of Twente

- Awarded with ITC Excellence Scholarship worth €40,000 for two years to pursue a Master in Geoinformation Science and Earth Observation

09/2012
Secondry Examination Scholarship – Government of India

- Awarded a Scholarship worth INR 10,000 and an Excellence Certificate for being in the top 0.1 percentile of students who passed the School Secondary examination