

Rishabh Gupta

Phone: +91 9933939617

E-mail: gupta.rishabh.61@outlook.com
gupta.rishabh.61@iitkgp.ac.in

Education

- ❖ Indian Institute of Technology June 2016
Master of Technology Kharagpur, India
Land and Water Resources Engineering
Agricultural and Food Engineering Department
 - CGPA: 9.09/10
 - Thesis: *Climate change impact on rice yield of agro-ecological zones of India*

- ❖ Jawaharlal Nehru Krishi Vishwa Vidyalaya June 2014
Bachelor of Technology Jabalpur, India
Agricultural Engineering
College of Agricultural Engineering
 - CGPA: 8.22/10
 - Thesis: *Land use/land cover mapping of Jabalpur District using Remote Sensing & GIS technique*

- ❖ Sacred Heart Inter College June 2010
Board of High School and Intermediate, Uttar Pradesh Sitapur, India
Intermediate (10+2)
 - Percentage: 79.8%
 - Subjects: *Physics, Chemistry and Mathematics*

- ❖ Sacred Heart Inter College June 2008
Board of High School and Intermediate, Uttar Pradesh Sitapur, India
High School (10)
 - Percentage: 73%
 - Subjects: *Mathematics, Science and Computer (C Language)*

Research Interest

- Climate change impact on crop yield
- Large scale crop modeling
- Hydrological modeling
- Remote Sensing and Geographical Information System

Software Skills

- Programming Languages: **Python (Libraries: arcpy, numpy, scipy, matplotlib, xlrd, xlwt, mysql.connector, pyqt4, netcdf4, pandas)**, C and Matlab
- Data Analysis: Connecting **Python with MySQL** to analyse large data
- Geographical Information Tool: ArcMap along with **Arcpy module of Python** to handle the tools of ArcMap for analyzing of large geo-spatial data
- Remote Sensing Tool: **ERDAS Imagine**
- Crop Model: DSSAT and to run **DSSAT with Python** for large number of simulations
- Hydrological Models: **SWAT, Arc-Hydro**

Relevant Courses

<i>M.Tech.</i> IIT-Kharagpur	Surface Water Hydrology, Geo-Informatics for Land and Water Resources, Climate Change and Water Resources, Advance Groundwater Hydrology, Modelling River Catchment Interactions, River Basin Planning and Management, On-Farm Water Management, Non-Point Source Pollution and Management.
<i>B.Tech.</i> JNKVV-Jabalpur	Remote Sensing and GIS Application, Watershed Hydrology, Irrigation Engineering, Drainage Engineering, Soil and Water Conservation Engineering, Soil and Water Conservation Structures, Ground Water Wells and Pumps, Watershed Planning and Management, Environmental Engineering.

Projects

❖ **Climate Change Impact on Rice Yield of Agro-Ecological Zones of India**

M.Tech. Thesis, IIT Kharagpur

May 2014 – June 2016

Description: Analysis of climate change impact on rice yield of agro-ecological zones (AEZs) of India has been carried out by using a process-based crop simulation model- **CERES-Rice** fed with improved state of art climate projections from eight **Global Climate Models (GCMs)** for four expected climatic scenarios-**Representative Concentration Pathways (RCP 2.6, 4.5, 6.0 and 8.5)**. Using weather, soil and crop management information as input to the crop model, simulations were performed for the base period (1976-2005) as well as three future periods (2020s: 2006-2035, 2050s: 2036-2065, and 2080s: 2066-2095) for insight understanding of climate change impact on rice yield. Model simulated rice yields of future periods were compared with that of the base period to quantify the climate change impact in order to capture the spatial as well as temporal yield change variability at the zone and country scale.

❖ **Land Use/Land Cover Mapping of Jabalpur District Using Remote Sensing & GIS**

B.Tech. Thesis, JNKVV, Jabalpur

July 2013 – December 2013

Description: An attempt has been made to map out the status of land use/land cover (LULC) of Jabalpur District in the year 2000 with a view to detect the land consumption status by using both

Geographical Information System and Remote Sensing. The map of the entire Jabalpur District was generated from the LANDSAT imagery having spatial resolution of 30 m. ERDAS Imagine software has been used as a tool to classify the image into different classes- wasteland, river, forest, water body, agriculture and open land, using unsupervised classification.

Trainings

- ❖ **Hydrological Simulation of Bargi catchment, Madhya Pradesh, India using SWAT Model**
Training at Indian Institute of Remote Sensing,
Indian Space Research Organization, GOI, Dehradun Feb 2014 – May 2014
- ❖ **Natural Resources Management with a Specific Theme on Soil and Water Conservation and Watershed Management**
Training at CSWCRTI, ICAR, Agra June 2013
- ❖ **Tractor and Agricultural Machinery**
Training at NRFMTT, GOI, Hisar May 2012

Academic Achievements

- 2014 – 2016: Ministry of Human Resources and Development (MHRD),
Government of India, Scholarship through Graduate Aptitude Test in Engineering (GATE – 2014)
- 2010 – 2014: Indian Council of Agricultural Research (ICAR),
Government of India, National Talent Scholarship through ICAR – All India Entrance Examination of Admission (ICAR AIEEA – 2010)

Extra-Curricular Activities

- Chief-in-Editor in Agri-NEST, wall magazine of College of Agricultural Engineering, JNKVV, Jabalpur (Feb 2013 – Jan 2014).

Publications

- **Rishabh Gupta and Ashok Mishra. "Climate Change Induced Impact and Uncertainty of Rice Yield of Agro-ecological Zones of India." Climatic Change - 2017. (Under Review After First Comment)**

References

- **Dr. Ashok Mishra**
Associate Professor, Agricultural and Food Engineering Department,
Indian Institute of Technology, Kharagpur, India
Phone: +91 3222 283890
Email: amishra@agfe.iitkgp.ernet.in
 - **Dr. Chandranath Chatterjee**
Professor, Agricultural and Food Engineering Department,
Indian Institute of Technology, Kharagpur, India
Phone: +91 3222 283158
Email: cchatterjee@agfe.iitkgp.ernet.in
 - **Dr. D. R. Mailapalli**
Associate Professor, Agricultural and Food Engineering Department,
Indian Institute of Technology, Kharagpur, India
Phone: +91 3222 283102
Email: mailapalli@agfe.iitkgp.ernet.in
-