

# Ankit Deshmukh

PH.D. · HYDROLOGY

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## Professional Experience

### Assistant Professor at Department of Civil Engineering

Gujarat, India

PANDIT DEENDAYAL PETROLEUM UNIVERSITY, GUJARAT

Aug 2020

Hydrology & Water Resources  
Advanced Surveying & Geomatics  
Basic Surveying

## Education

### Doctor of Philosophy in Hydrology

Hyderabad, India

INDIAN INSTITUTE OF TECHNOLOGY HYDERABAD

2016 - 2021

Reserach excellence awards in 2016 and 2017.

### Master of Technology in Water Resources Engineering

Hyderabad, India

INDIAN INSTITUTE OF TECHNOLOGY HYDERABAD

2014 - 2016

CGPA 8.87/10  
Completed M-Tech in 1.5 year

### B.E. in Civil Engineering

Bhopal, India

BANSAL INSTITUTE OF SCIENCE AND TECHNOLOGY

2009 - 2013

76.6% with distinction  
Got a central sector scholarship which is given to promising students in academics.

## Skills

**Tools** Data analysis, GIS: automation and scripting with GRASS and 'arcpy'

**Programming** R(1), Matlab(2), Python(3)

**Web and illustration** Interactive web apps with R-Shiny, Inkscape & Adobe illustrator, complex data visualization

**Content organization and writing** LaTeX, Markdown, Zotero

**Languages** English, Hindi

## Publications

### Physio-climatic controls on vulnerability of watersheds to climate and land use change across the united states. <https://doi.org/10.1002/2016WR019189>

Water Research Resources: **4.36**

A. DESHMUKH AND R. SINGH

Nov. 2016

- We quantify watershed vulnerability to environmental change using an exploratory modeling framework.
- We assess the vulnerability of a range of watersheds across the U.S. to climate and land use change.
- we relate watershed's vulnerability to environmental change with its physio-climatic characteristics.

### A Whittaker-Biome based framework to account for the impact of climate change on catchment behavior. <https://doi.org/10.1029/2018WR023113>

Water Research Resources: **4.36**

A. DESHMUKH AND R. SINGH

Dec 2019

- Compare climate vulnerability of catchments quantified from fixed versus changing parameters.
- Propose a method to account for changes in model parameters with climate.
- Show when vulnerability to climate change might be under-estimated.

## Book Chapter: Assessing the vulnerability of water availability across india to climate change and interlinking of rivers.

*Sustainable Holistic Water  
Resources Management in a  
Changing Climate*

Aug. 2017

R. SINGH, SAI VEENA AND A. DESHMUKH

- We employ the exploratory modelling framework to quantify catchment vulnerability to climate change irrespective of future changes that may take place.
- Implications of river interlinking on vulnerability of water availability across India.

## Presentation

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### ORAL PRESENTATION

#### Identifying physio-climatic controls on watershed vulnerability to climate and land use change

*IIT Madras, India*

PRESENTER FOR SWAT(2018)

Jan. 2018

#### Role How do watersheds physio-climatic characteristics control its vulnerability to climate and land use change?

*MANAGE, Hyderabad, India*

PRESENTER FOR NWMCCAAAS(2016)

July. 2016

### POSTER PRESENTATION

#### Towards a robust framework for catchment classification

*New Orleans, USA*

PRESENTED IN AGU 2017

Dec. 2017

- The framework focuses on quantification of similarity of two clustering with, several aspects of clustering such as feature selection, validation of clustered data.

#### What controls vulnerability of watersheds to climate and land use change across the United States?

*San Francisco, USA*

PRESENTED IN AGU 2015

Dec. 2015

## Extracurricular Activity

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#### SWAT workshop (Transportation and accommodation)

*IIT Hyderabad, India*

CORE MEMBER

Dec. 2014

- Gained experience in organizing and managing international conferences.
- Held several hacking competitions non-profit, just for fun.

## Honors & Awards

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2017 **First**, Best presentation on Research scholar day 2017

*Hyderabad, India*

2014 **Gate 2014**, Secure 603 in GATE 2014.

*Hyderabad, India*

2009 **Selected**, Center sector scholarship for 4 years in B.E.

*Bhopal, India*

2009 **Selected**, Chief minister's award for best performance in academics

*Betul, India*

2008 **Selected**, Vigyan manthan yatra by State Govt.

*Bhopal, India*