# ARYA SAJEEV

**Email ID:** aryasaji93@gmail.com
**Researchgate :**
https://www.researchgate.net/profile/Arya-Sajeev-4

## CAREER SUMMARY

Arya Sajeev is a dedicated researcher with a robust academic background in Water resources Engineering and Management. She holds a Ph.D. focused on meteorological and hydrological droughts incorporating machine learning techniques for prediction and evaluating the impacts on crop yields.

## EDUCATIONAL QUALIFICATIONS

**2018-2024**

➢ **Ph.D in Water Resources Engineering and Management**

- **Institution** : National Institute of Technology Karnataka
- **Year of completion**: 2024 (Successfully defended thesis on September 3, 2024)

**2016-2018**

➢ **M.Tech in Water Resources Engineering and Management**

- **Institution** : National Institute of Technology Karnataka
- **University** : National Institute of Technology Karnataka
- **First Rank with 9.42 CGPA**

**2011-2015**

➢ **B.Tech in Civil Engineering**

- **Institution** : Viswajyothi College of Engineering and Technology, Vazhakulam
- **University** : Mahatma Gandhi University , Kottayam
- **First class with honours with 8.54 CGPA**

## RESEARCH EXPERIENCE

1. **Doctoral Research:**

**Title : Assessment of Meteorological and Hydrological Droughts Using Stationary and Non- Stationary Indices for Two Contrasting Climate Regions in India** (Investigating impact of meteorological and hydrological drought on crop yields in two different climate regions in India byincoporating **large scale climate oscillations** in the computation of drought index. Also included the prediction of drought using machine learning techniques.

2. **Master's Thesis**

   **Title: Temporal bivariate drought characterization of two contrasting climate in India using Copula**

   (Investigated meteorological drought in two contrasting climate regions in India using Copula, and calculated return periods of drought based on copula based equations. Impact of drought on agricultural production is also analysed)

3. **B.Tech Project**

   Studies on prediction of landslides and mitigation methods.

## INTERNSHIP

- NIH, Belgaum (2017, for two months) : Evaluation of bias correction methods forCORDEX precipitation data in Bijapur district of Karnataka

## TEACHING EXPERIENCE

**July-Dec, 2017**

- Participated as tutor in the Special Coaching for the SC/ST/OBC/PWD students of the first year B.Tech. Programme

  Institution : SC-ST CELL, National Institute of Technology, Karnataka

## PUBLICATIONS

**Journals**

- Arya Sajeev, Deb Barma, Amai Mahesha and Jenq-Tzong Shiau. (2021) " Bivariate drought characterization of two contrasting climate regions in India using copula." ***J. Irrig. Drain. Eng***. 147 (3): 05020005 **(ASCE).** https://doi.org/10.1061/(ASCE)IR.1943-4774.0001536

- Arya Sajeev and Subrahmanya Kundapura. (2023) "Temporal assessment of meteorological drought events using stationary and non-stationary drought indices among two different Climate regions in India." ***J.Hydrol.Eng***. 28(11):05023018 (**ASCE**). https://doi.org/10.1061/JHYEFF.HEENG-6011

- Arya Sajeev and Subrahmanya Kundapura, (2024) "Comparative evaluation of meteorological and hydrological drought using stationary and non-stationary indices in a semi-arid river basin in India." ***Natural Hazards (Springer)*** https://doi.org/10.1007/s11069-024-06739-2

- Arya Sajeev and Subrahmanya Kundapura, "Drought forecasting using ARIMA and Artificial Neural Network in a semi-arid Region in India". (**Submitted to Journal of Hydrologic Engineering (ASCE).**

**Conferences**

- Arya Sajeev and Subrahmanya Kundapura "Stream flow and Hydrological Drought Trend analysis and forecasting." Proc. Int.Conf. Hydraulics, Water Resources and Coastal Engg., (HYDRO 2020), Paramount Publishing House, ISBN: 9789390631568, Vol. 2, 1155-1165. (Secured best paper award)

- Arya Sajeev and Subrahmanya Kundapura. 2022, "A Non-stationary Streamflow Drought Index using large-scale climate indices as covariates." Proceedings of 2nd International Conference on River Corridor, Research & Management, Organized by IIT Guwahati and IIT Jammu on 30th May – 1st June 2022 (Springer Nature). Pp. 88. https://link.springer.com/chapter/10.1007/978-981-99-4423-1_4

## SEMINAR

- Effect of magnetized water on engineering properties of concrete (B.Tech Seminar)
- **Impact of climate change on future soil erosion** (M.Tech Seminar)

## WORKSHOPS ATTENDED

•Attended Gian workshop on " Geostatistical Analysis of Environmental Data" from 5 to 9 December, 2016 in NITK

•Attended Gian workshop on " Practical Analysis of Environmental Data with Open source Software (R and QGis)" from 5 to 9 February, 2018 in NITK

•Participated in the training course on "River Rejuvenation, Training and Management" organized by CWPRS, Pune during 7th - 8th February 2019.