Faculty Profile

Name: Rashmita Deheri

Qualification: M. Sc (2015-2017)
              Ph. D (2018- Continuing)

Designation: Assistant Professor

Email Id: rashmita.deheri@bjbcollege.in

Area of interest: Quantum mechanics, Mathematical Physics,

Area of research: Fiber laser technology, Nonlinear fiber optics, Raman fiber lasers, Reflective spectral shaper, Frequency conversion.

Teaching Area:
- **UG:** Mathematical physics, Nuclear Physics, Thermal Physics.
- **PG:** Quantum mechanics, Mathematical Physics.

Total No. of Teaching Experience (Yrs):
- **UG:** 01
- **PG:** 01

Research Supervision:

- **Completed (M.Phil/Ph.D):**

Name of the Student	Degree	University	Title of the Thesis	Date of Registration	Date of Submission	Date of Award of Degree

- **Ongoing (M.Phil/Ph.D):**

Name of the Student	Degree	University	Title of the Thesis	Date of Registration

Publication Profile

Research Articles Published:

Peer reviewed

1. **Rashmita Deheri,** Sarthak Dash, V. R. Supradeepa, and V. Balaswamy. "Cascaded Raman fiber lasers with ultrahigh spectral purity." Optics Letters 47, no. 14 (2022): 3499-3502.

International conference proceedings

1. **Rashmita Deheri**, Sarthak Dash, V. R. Supradeepa, and V. Balaswamy. "Cascaded Raman fiber lasers pumped with narrow linewidth, low intensity noise sources." In *Conference on Lasers and Electro-Optics/Pacific Rim*, p. CTuP1D_03. Optica Publishing Group, 2022.

2. **Rashmita Deheri**, Sarthak Dash, V. R. Supradeepa, and V. Balaswamy. "Cascaded Raman fiber lasers with very high spectral purity and low intensity noise." In *Fiber Lasers XIX: Technology and Systems*, vol. 11981, pp. 142-146. SPIE, 2022.

3. Sarthak Dash, **Rashmita Deheri**, Vishal Choudhury, and V. R. Supradeepa. "Fourier pulse shaper assisted feedback in cascaded Raman lasers for reduced linewidth and wide wavelength tunability." In *Optical Components and Materials XIX*, vol. 11997, pp. 141-145. SPIE, 2022.

4. Abhigyan Goswami, Sarthak Dash, **Rashmita Deheri**, S. Arun, and V. R. Supradeepa. "Pulsed Cascaded Raman Fiber Laser with Wide Wavelength Tunability." In *Conference on Lasers and Electro-Optics/Pacific Rim*, p. CTuP1D_02. Optica Publishing Group, 2022

5. Sarthak Dash, **Rashmita Deheri (equal authorship)**, Vishal Choudhury, and V. R. Supradeepa. "Tunable random distributed feedback Raman fiber laser with Fourier spectral shaper for feedback control." In *Fiber Lasers XVIII: Technology and Systems*, vol. 11665, pp. 112-117. SPIE, 2021.

Books Chapters Published:

Books Published:

Articles Published in Newspapers/Magazines:

Research Projects:

NAME	DEPARTMENT	TYPE (MAJOR/MINOR)	NAME OF THE FUNDING AGENCY	FUNDS PROVIDED (INR IN LAKHS)	TITLE OF THE PROJECT	MONTH AND YEAR OF RECEIVING GRANT	DURATION OF THE PROJECT

Papers presented in Conferences/Seminars:

1. "Experimental investigation on linewidth evolution of cascaded Raman fiber laser pumped with low intensity noise fiber amplifiers." Photonics conference, 2023, held in IISc Bangalore.

2. "Cascaded Raman fiber lasers with very high spectral purity." WOPI 2022 held in RRI Bangalore.

3. "Cascaded Raman fiber lasers pumped with narrow linewidth, low intensity noise sources." Conference on Lasers and Electro-Optics (CLEO) / Pacific Rim, 2022 held in Sapporo, Japan.

4. "Cascaded Raman fiber lasers with very high spectral purity and low intensity noise." In Fiber Lasers XIX, Photonics West 2022 (Online).

Invited/Special Lectures/Resource Persons or Presentations at Conferences/ Workshops:

Awards and Distinctions:

1. 3rd Best student paper award, SPIE Photonics West 2022, Fiber lasers XIX: Technology and systems, San Francisco, US.

2. Joint entrance screening test (JEST 2018), All India rank- 89.

3. UGC Junior Research Fellowship December 2017, All India rank- 123.

4. GATE 2017, GATE 2018.

5. Gold medal in Physics, M.Sc. (2017).

Association with Professional Bodies: