Curriculum Vitae

1. Name: Dr. Devika Phukan
2. Permanent Address: C/O. G.S. PHUKAN. HOUSE NO-11, Ward No -4, Bogoriguri. P.O Ramani Ali, Simaluguri, 785686.
3. Present Address: Royal Aawas Guwahati, Behind Royal Global University, Block-D, D-107. NH-37, 781035
4. Phone Number: 8011638059
5. Emergency Contact Number: 7002543827 (Brother's no.)
6. Personal e-mail id: devika.phukan@rgi.edu.in
7. (a) Duration of work: 23 yrs. 7 months

(b) Work Experience:
i. Salt Brook academy [June 1999 to July 2001]
ii. Sri Revanna Siddheswaraya Institute of Technology, Bangalore [2002 August -2003 August]
iii. Rajiv Gandhi institute of technology, Hebbal, Bangalore [2003 September to 2009 August]
iv. Royal Global University [2009 August to till date]

(c) Teaching Areas:
i. Engineering Physics
ii. Electrodynamics
iii. Optoelectronics
iv. Atomic and Molecular Physics
v. Laser and Raman spectroscopy
vi. Nonlinear optics and Laser Spectroscopy
vii. Laser Physics.

(d) Research interest:
i. Optical communications
ii. Laser and Optoelectronics
iii. Photonics
iv. Laser spectroscopy
v. Non-linear optics.

(e) Academic Qualification:
i. HSLC from HFC Model schools Namrup. [now BVFCL]
ii HSSLC from Namrup Higher secondary school.
iii. B.Sc. (Physics). Gargaon college, Gargaon.
iv. M.sc (Physics) Dibrugarh university. Dibrugarh.
v. M.Phil. (Physics) Dibrugarh university. Dibrugarh.
vi. PhD. (Physics) Dibrugarh university. Dibrugarh.

(f) Awards/Fellowships/Achievements**:** Best faculty award 2015, by Gyan Sagar Institution. (Now Royal Global University.)

8. Research Group members:
    i. Ms. Pranami Sarma
    ii. Ms. Priyanka Talukdar
    iii. Mr. Arup Saikia
    iv. Mr. Bidish Borah
    v. Mr. Partha Pratim Borah
    vi. Ms. Violina Das

9. My Publications:

ARTICLE PUBLISHED:

1. Soliton pulse compression in air-core photonic band-gap fibre.
Pranami Sarma[1], Devika Phukan [1*] and Anurup Gohain Barua[2]
Pramana – J. Phys. (2023) 97:133 © Indian Academy of Sciences https://doi.org/10.1007/s12043-023-02593-2.

2. A Comparative Exploration of Femtosecond Optical Pulse Propagation in Hollow Core Photonic Crystal Fiber and Conventional Optical Fiber.
P. Talukdar[1], D. Phukan[2], S. Hazarika[3]
Web ology (ISSN: 1735-188X) Volume 20, Number 03, 2023.

3. Designing an Air Core Photonic Bandgap Fiber to Study the Dispersion and Loss Characteristics for Optical Pulse Propagation.
Devika Phukan*[1], Priyanka Talukdar[2], and Pranami Sarma[3].
Volume 67, Issue 3, 2023 Journal of Scientific Research of The Banaras Hindu University.

4. Investigation on group velocity dispersion and leakage loss in Air core Photonic Bandgap fibers.
D. Phukan, P. Sarma, P. Talukdar [Web ology Accepted]

5. Structural Simulation and investigation of propagation characteristics of Photonic Crystal fibers for efficient transmission and delivery of ultrashort optical pulses
P. Talukdar* D. Phukan**, S. Hazarika*** [JSR Accepted]

6. A Comparative Analysis of Basic and Enhanced Hole Structures in Photonic Crystal Fibers.
P. Talukdar[1], D. Phukan[2]
Journal of Optics. [Accepted for publications]

7. On the nature of dispersion curve in a Raman gain media.
D. Phukan[1,] M. Gogoi[2] , G.D. Baruah[3]
Asian journal of Physics, ISSN 0971-3093, Vol -11 , No-1 2002, 116-119

8. A comparative analysis of the process of energy transfer in SRS and emission spectra of P-Benzoquinone vapour.
S. Bhattacharya[1], D. Phukan[2], G.D. Baruah[3]
Asian journal of Physics, ISSN 0971-3093, Vol -9, no 4, (2000), 446-450

9. Analysis of the pump input stokes input and output intensities in stimulated Raman scattering process.
D. Phukan[1], G.D. Baruah[2]
Asian chemistry letters, ISSN 0971-9822, Vol -3 no 3, (1999), 119-122

10. A comparative study of the coefficients in two mirror and ring laser.
M. Gogoi[2], Phukan [2], G.D. Baruah[3]
Asian journal of Physics, ISSN 0971-3093, Vol -7 no 4, (1998), 731-737

FULL PAPERS IN CONFERENCE PROCEEDINGS:

1. A comparative analysis of the coefficients in two mirror and ring laser
   Proceedings of the 85th session of the INDIAN SCIENCE CONGRESS. 1998. Hyderabad
2. Properties of inverted medium exhibiting superluminal effect
   The 6th Asian thermophysical properties conference proceeding, Tiruchirappalli .2001

3. Evaluation of stokes pulse in a Raman laser.
   Proceedings of national conference on laser and its application. Dibrugarh university. 2001
4. Optimization of pulse shaping using nonlinear polarization rotation in optical fibers.
   Proceedings of national conference on laser and spectroscopy-. Meerut, 2003

BOOK CHAPTERS:

1.Comparative analysis of soliton pulse input energy and order in photonic bandgap fiber by simulation, **Frontiers in physical sciences, Guwahati-32 / 2023,**
Pranami sarma, Devika phukan

2. Comparison of photonic crystal fibres for efficient transmission using finite difference time domain
method, **Frontiers in physical sciences, Guwahati-32 / 2023**
Priyanka talukdar, Devika phukan

3. Effect of electromagnetic wave passing through varying size of silver nano particle**,**
Frontiers in physical sciences, Guwahati-32 / 2023
Minhajul Nazarat, Devika phukan

4. **Engineering physics**-I, ISBN 978-81-85917-67-1, 2016 August (Textbook)
5. **Engineering physics**- II 1SBN 978-81-85917-58-2, 2017 Jan (Textbook)

PEER REVIEWER:

1. American Journal of Optics and Photonics.
2. B.P. International [BPI/PR/Cert/6775B /DRD]

10. Openings

Graduate and post graduate students desirous of joining our group for research can contact the group leader via email (devika.phukan@rgi.edu.in).