## LARAMBHA COLLEGE, LARAMBHA

## **Faculty Profile**

Name: Dr. Subal Ranjan Sahu

**Designation:** Lecturer in Mathematics

**Department:** Mathematics

Areas of Interest/Specialization:Numerical Solution of Singular Perturbation Problems,

Numerical Analysis, Partial Differential Equation

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**1.Educational Qualifications:** 

| SI No | Qualification        | Institution   | Year |
|-------|----------------------|---|------|
| 01    | M.Sc. in Mathematics | Pondicherry University                              | 2015 |
| 02    | Ph.D                 | National Institute of<br>Technology Rourkela, India | 2021 |
| 03    | GATE                 |   | 2015 |
| 04    | JRF(NET)             | CSIR  | 2017 |

## 2. Teaching Experience (in year):

| SI No. | Organization                                | Position Held       | Duration         |
|--------|---|---------------------|------------------|
| 01     | Rajendra (Autonomous) College, Balangir     | Guest Lecturer      | 08/2015- 12/2015 |
| 02     | The ICFAI University, Agartala-799210,      | Assistant Professor | 10/2020-09/2021  |
| 03     | C.V Raman Global University,<br>Bhubaneswar | Assistant Professor | 10/2021-5/2022   |
| )4     | Larambha College Larambha                   | Lecturer            | 5/2022-Till Date |

## 3. Research and Publication:

Publications (Best 5 Only):

|   | A) Book Chapters:  |
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| 1 | Polynomial Paradigms: Trends and applications in science and engineering, IOP Publishing<br>Ch-4:Polynomial-based numerical methods for singularly perturbed differential equation on<br>layer-adapted meshes  |
| ] | B) Research Papers:  |
| 1 | S. R. Sahu, J. Mohapatra, A second order finite difference scheme for singularly perturbed initial value problem on layer adapted meshes, Int. J. Model. Simul. Sci. Comput., 10(3): 1950016, 2019. <u>https://doi.org/10.1142/S1793962319500168</u> |
| 2 | S. R. Sahu J. Mohapatra, Numerical study of time delay singularly perturbed parabolic partial differential equations involving space shifts, Eng. Comput., 38(6),2882–2899, 2021.<br>https://doi.org/10.1108/EC-07-2020-0369                         |



| 3 | S. R. Sahu J. Mohapatra, Numerical investigation for solutions and derivatives of singularly perturbed initial value problems, Int. J. Math. Model. Numer. Optim., 11(2):123–142, 2021.<br>https://doi.org/10.1504/IJMMNO.2021.114480             |
|---|---|
| 4 | S. R. Sahu, J. Mohapatra, Parameter uniform numerical methods for singularly perturbed delay dierential equation involving two small parameters, Int. J. Appl. Comput. Math., 5(5): 129, 2019. <u>https://doi.org/10.1007/s40819-019-0713-0</u>   |
| 5 | S. R. Sahu, J. Mohapatra, Parameter uniform numerical methods for singularly perturbed delay differential equation involving two small parameters, Int. J. Appl. Comput. Math., 5(5): 129, 2019. <u>https://doi.org/10.1007/s40819-019-0713-0</u> |

4. Seminars/Conferences/Symposiums (Recent 5):

| 1 | A robust numerical approach for singularly perturbed third order boundary value problem on<br>layer adapted meshes, National Conference on Recent Advances in Mathematics and its<br>Applications, NCRAMA-2018, NIT Rourkela, Dec. 07- Dec 08, 2018.                              |
|---|---|
| 2 | Parameter-uniform hybrid numerical scheme for singularly perturbed initial value problem,<br>National Conference on Computational Modeling of Fluid Dynamics Problems, CMFDP-2019, NIT<br>Warangal, Jan. 18- Jan 20, 2019.  |
| 3 | Spline-based numerical method for two parameters singularly perturbed problems, International<br>Conference on Applications of Basic Sciences, ICABS-2019, Bishop Heber College Tiruchirappalli,<br>Nov. 19- Nov 21, 2019.  |
| 4 | Numerical investigation for time delay singularly perturbed parabolic problems involving space<br>shifts, International Conference on Advances in Differential Equations and Numerical Analysis,<br>ADENA-2020, Indian Institute of Technology Guwahati, Oct. 12 - Oct. 15, 2020. |

5. FDP/ Refresher Course:

| 1 | Short term course on Spoken Tutorial Project, IIT Bombay, funded by National Mission on |
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|   | Education through ICT, MHRD, Govt., of India, Pondicherry University, 15 March, 2015.   |