

# CURRICULUM VITAE

## 1. Personal information:

Dr. Raghunath Patra  
Assistant Professor (Stage-III)  
P. G. Dept. Mathematics  
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Email: [raghunathpatra09@gmail.com](mailto:raghunathpatra09@gmail.com)  
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## 2. Research area: Relativity & Cosmology

## 3. Educational qualification: M. Sc., Ph. D.

## 4. Work experience:

Sl. No.	Name of the institution	From	To
1.	U. P. Science College, Sheragada, Gm	04.09.1991	05.04.2011
2.	Berhampur University	06.04.2011	Till now

## 5. Dissertation/Thesis supervision:

Sl. No.	Name of the student	Title of the thesis	Remarks
1.	Smt. Ritarani Swain	Study of Homogeneous and inhomogeneous cosmological models in Einstein's theory of Relativity.	Degree awarded in 2017
2.	Smt. Mita Sharma	Some aspects of Einstein's theory of Relativity and Cosmology.	Degree awarded in 2017

3.	Sri. Ajit Kumar Sethi (RGNF)	Some studies on Cosmological models in Lyra's manifold.	Degree awarded in 2020
4.	Sri. Chandra Otta	Study of five dimensional cosmological models in theory of relativity.	Under progress
5.	Mis. Anuragini Patra	Analysis of cosmological models in the recent trends of gravitation theory.	Under progress

- **Number of supervision of M.Phil students: 10**

## 6. Research publications:

1. M. Reza, A. Rana, R.N. Patra: Thermal performance for electromagnetohydrodynamic flow of non newtonian casson fluid through porous microtube; International Journal of Engineering and Technology, Vol. 9 (3), P. 804-811, 2020.
2. M. Reza, A. Bhattacharyya, A. Rana, R.N. Patra: Soret and Dufour effects on entropy generation for AIN and Hybrid Nanofluid flow over past a stretching sheet in porous media; 64th Congress of Indian Society of theoretical and applied mechanics, 2020 (Conference proceeding).
3. A.K. Sethi, B. Nayak & R.N. Patra: String Cosmological Models with Bulk Viscosity in Lyra Geometry; Journal of Physics: Conf. Series, Vol. 1344, P. 1-8, 2019.
4. R.N. Patra, A.K. Sethi: Titled Bianchi –I Cosmological model with perfect fluid in Lyra Geometry with time varying term-  $\Lambda$  ; International Journal of Applied and computational Mathematics, Vol. 5:94 , 2019.
5. A.K. Sethi, R.N. Patra, B. Nayak: Generalized Chaplygin Gas and Varying Bulk Viscosity in Lyra Geometry; International Journal of Physical and Mathematical Sciences, Vol. 13(11), P. 203-206, 2019.
6. R.N. Patra, M. Reza, A. Rana: Thermal transport of electromagnetohydrodynamic flow of Casson-nano fluid through a porous microtube under the effect of streaming potential; 64<sup>th</sup>

Congress of Indian Society of theoretical and applied mechanics, 2019 (Conference proceedings).

7. R.N. Patra: Bianchi type-I universe models with constant deceleration parameter in Lyra geometry; *Journal of Applied Physical Science International*, Vol. 10(3), P. 151-154, 2018.
8. R.N. Patra, A.K. Sethi, B. Nayak, R.R. Swain: Effect of dark energy on cosmological parameters with LVDP in Lyra manifold, *New Astronomy*, Vol. 66, P. 74-78, 2018.
9. R.N. Patra: Homogeneity in isotropic spherical macro model; *Journal of Applied Physical Science International*, Vol. 10(2), P. 86-91, 2018.
10. R.N. Patra, A.K. Sethi, R.R Swain: Anisotropic LRS Bianchi model with perfect fluid in Lyra manifold; *Asian Journal of Mathematics and Computer Research*, Vol. 25(3), P. 174-182, 2018.
11. R.N. Patra: Spherical Homogeneous Cosmological Model with conformally Invariant Scalar Field; *IJRASET*, Vol. 6(V), P. 2367-2375, 2018.
12. R.N. Patra: Spherically symmetric space-time with magnetic field and zero mass scalar field; *IJMTT*, Vol. 54(1), P. 11-23, 2018.
13. A. Sorli, S.K. Patro, R.N. Patra: Relativistic Rate of Clocks and stability of the Gravitational constant  $G$  ; *IJRASET*, Vol. 6(1), P. 799-804, 2018.
14. R.N. Patra, A.K. Sethi: Bianchi type –III bulk viscous cosmological models in presence of Chaplygin gas with time varying-  $\Lambda$  in Lyra Geometry; *International Journal of Pure and applied Physics*, Vol. 13(3), P. 289-299, 2017.
15. S.N. Tripathy, S.K. Kapat, R.N. Patra, S.K. Das: A Comprehensive study of Malware Propagation using Geometric Progression; *International Conference on Computational Intelligence and Network*, IEEE, P. 73-77, 2017.
16. R.N. Patra: String Cosmological Model in a New Scalar Tensor Theory of Gravitation; *International Journal of Mathematics Trends and Technology*, Vol. 48(2), P. 152-154, 2017.
17. R.N. Patra: Anisotropic Cosmological Model of Cosmic String with Bulk Viscosity in Lyra Geometry; *International Journal of Mathematics Trends and Technology*, Vol. 48(2), P. 147-151, 2017.

18. U.K. Panigrahi, R.N. Patra, M. Sharma: Higher Dimensional Spherical Symmetric Metric Models in a new Scalar Tensor Theory of Gravitation; International Journal of Mathematics Research, Vol. 7(1), P. 1-6, 2015.
19. R.N. Patra, R.C. Sahu, R.R. Swain: Identification of Scalar Meson Field with Perfect Fluid in Bimetric Theory for a Spherically Symmetric Cosmological Model; International Journal of Emerging Technologies in Engineering Research, Vol. 3 (3), P. 41-43, 2015.
20. S.N. Jena, R.N. Patra, R.R. Swain: Existence of Stiff Fluid Model as a Coupling Effect of Perfect Fluid and Magnetic Field in Bimetric Relativity; International Journal of Physics and Mathematical Science, Vol. 5(3), P. 14-17, 2015.
21. S.N. Jena, R.N. Patra, R.R. Swain: Non-Existence of String Cosmological Models in Presence of Magnetic Field in Bimetric Theory; International Journal of Innovative Science Engineering and Technology, Vol. 2 (6), P. 721-727, 2015.
22. U.K. Panigrahi, R.N. Patra, M. Sharma: Vacuum Solution of Five Dimensional Plane Symmetric Metric in  $f(R)$  Theory of Gravity; IOSR Journal of Applied Physics, Vol. 7(3), P. 1-4, 2015.
23. S.N. Jena, R.N. Patra, R.R. Swain ;Spherically Symmetric Inhomogeneous Macro Model Filled with Perfect Fluid; International Journal Innovative Science, Engineering & Technology, Vol.2(4),P.421-429, 2015.
24. S.N. Jena, R.N. Patra, R.R. Swain: Anisotropic Radiating Model As a Mutual Effect of Perfect Fluid, Cloud Massive String and Magnetic Field in Bimetric Relativity; International Journal of Mathematical Research, Vol. 7(1) ,P.69-73, 2015.
25. U.K. Panigrahi, R.N. Patra, M. Sharma: Five Dimensional String Cosmological Models in Barber's Second Self Creation Theory; International Journal of Physics and Applications, Vol. 7(1), P. 31-37, 2015.
26. U.K. Panigrahi, R.N. Patra, M. Sharma: Five Dimensional Plane Symmetric Universe in Creation Field Cosmology; The African Review of Physics, Vol. 9:0045, P. 355-360, 2014.

27. U.K. Panigrahi, R.N. Patra, M. Sharma: Five Dimensional Spherical Symmetric Universe in Creation Field Cosmology; African Review of Physics, Vol. 9:0036, P. 277-281, 2014.
28. R.C. Sahu, R.N. Patra, B. Behera, B.K. Nayak: Non-Static Plane Symmetric Magnetized Cosmological Models in Bimetric Theory of Gravitation; The International Journal of Science & Technology, Vol. 2(7), P. 164-170, 2014.
29. U.K. Panigrahi, R.N. Patra, M. Sharma: Five Dimensional String Cosmological Models in Lyra Manifold; International Journal of Mathematical Archive, Vol. 5 (5), P. 63-68, 2014.
30. R.C. Sahu, R.N. Patra, B.K. Nayak, B. Behera: Binachi Type-I String Magnetized Cosmological Model in Bimetric Theory; International Journal of Mathematical Archive, Vol. 5(7), P. 97-103, 2014.
31. U.K. Panigrahi, R.N. Patra: Relativistic Cosmological Mass Model; International Journal of Mathematical Archive; Vol. 3(2), P. 471-476, 2012.
32. U.K. Panigrahi, R.N. Patra: Bianchi type-I homogeneous cosmological models in Einstein theory and modified theory of general relativity; International Journal of Physics and Mathematical Sciences, Vol. 2(1), P. 229-238, 2012.
33. R.N. Patra, R.C. Sahu: Bianchi Type-I Inflationary Models in General Relativity; Acta Ciencia Indica, Vol. XXXVI(1), P. 9-13, 2010.
34. U.K. Panigrahi, R.N. Patra: Plane Symmetric Inhomogeneous Macro Models; Acta Ciencia Indica, Vol. XXXIV(2), P. 893-897, 2008.
35. U.K. Panigrahi, R.N. Patra: Some Geometrical Aspects of the Space Time; Science Journal of GVISH; Vol. II, P. 33-37, 2005.
36. U.K. Panigrahi, R.N. Patra, R.C. Sahu: Plane Symmetric Inhomogeneous Micro and Macro Models; Science Journal of GVISH, Vol. II, P. 1-5, 2005.

**Book publication:** "Some studies on relativistic cosmology"

ISBN:978-3-659-33555-6, LAP- Lambert Academic Publishing, Germany.

**7.Research funded projects:** Nil

## 8. University administration:

Sl. no.	Position	Duration
1.	Deputy center supervisor(Central Valuation )	2013-14
2.	Center supervisor (Central Valuation)	2014-15
3.	Asst. Director of DEC	2014-15
4.	Course coordinator of Mathematics (DEC)	2016-18
5.	Coordinator of the Dept. of Mathematics	2017-19
6.	Chairman, BOS of Mathematics & Statistics	19.05.2018 to till now
7.	Asst. Controller of examination, BU	04.02.2020 to till now
8.	Coordinator of University Higher Secondary School	12.02.2020 to till now

## 9. Members of committee in university & outside:

Sl. no.	Details
1.	Member, IQAC cell, Berhampur University.
2.	Life member of Indian Mathematical Society.
3.	Life member of Odisha Mathematical Society.
4.	Executive body member of Odisha Mathematical Society.
5.	Quarterly Franklin membership, London journal press .
6.	Life member of Indian Association for General Relativity & Gravitation.
7.	Member of editorial board, Journal of theoretical Physics.
8.	Member, BOS of Mathematics, Rayagada Autonomous College.
9.	Zonal Coordinator, Berhampur University Zone, Indian National Mathematical Olympiad.

## 10. Awards & recognition: Nil

## 11. Conference/Workshop attended:

Sl. no.	Name of the conference with institution details	Duration
1.	NCRTMAA-2010, Dept. of Mathematics, Berhampur University	Dec 22-23, 2010

2.	"77th Annual Conference of the Indian Mathematical Society(IMS)", Swami Ramanand Teerth Marathwada University, Nanded-4314 606, Maharashtra	Dec 27-30, 2011
3.	"Annual conference of Odisha Mathematical society" at Vivekanand Institute of Technology, Chhatabara, Bhubaneswar, Odisha	Feb 04-05, 2012
4.	ICAA-2012, Dept. of Mathematics, Berhampur University.	July 20-21, 2012
5.	"ICIMSC-2014" , School of Applied Sciences , KIIT University, Bhubaneswar	Jan 04-05, 2014
6.	NSRAP-2014, Dept. of Physics, Berhampur University.	May 05-06, 2014
7.	U.G. C sponsored National Seminar, Chikiti Mahavidyalaya , Chikiti, Odisha	Sept 20-21, 2014
8.	"17th Odisha Bigyan congress" at ITER (SOA University) , Jagamara, Bhubaneswar	Dec 05-06, 2014
9.	"National Seminar on Advances in Mathematical Analysis and its applications" , Dept. of Mathematics, NIST, Berhampur	Dec 19-20, 2014
10.	UGC DST sponsored ICGR-2015, Dept. of Mathematics, Sant Gadge Baba Amravati University, Amravati	Nov 25-28, 2015
11.	43rd Annual Conf. and National Seminar (ACTRWP-2016), OMS	Jan 16-17, 2016
12.	"National Workshop on MATLAB for Mathematical Applications" IMA, Andharua, Bhubaneswar	Jan 22-23, 2017
13.	NSCTPP-2017, Dept. of Physics, Berhampur University	Feb 11-12, 2017
14.	"National Seminar on Computational and Mathematical Engineering " , Department of Mathematics, P MEC, Sitalapalli, Berhampur	Feb 03-04, 2018
15.	ACOMS 2020, NIST, Berhampur, Odisha	Feb 15-16, 2020
16.	"Maximize the Benefits of ProQuest for Academic Research and Learning" –Online conference	30 July, 2020

17.	"Workshop on NAAC" at Govt. P.G. College, Bilaspur, Rampur, UP	Aug 02-08, 2020
18.	"International webinar on Recent Developments in Number Theory- 2020", Dept. of Mathematics, School of Applied Sciences, KIIT Deemed to be University, Bhubaneswar, Odisha	Aug 17-20, 2020
19.	"Workshop on Physics of the Early Universe" organized by IAGR at ICTS, Bangalore	31-08-2020 to 03-09-2020
20.	"International Webinar Recent Trends in Geometric Function Theory and Applications-2020" , Dept. of Mathematics, School of Applied Sciences, KIIT Deemed to be University, Bhubaneswar, Odisha	Sept. 18-21, 2020
21.	"International webinar on Advances in Optimization Techniques", Department of mathematics, School of applied science, KIIT deemed to be university, Bhubaneswar, Odisha	30.10.2020 to 01.11.2020

## 12. Interdisciplinary activity:

Sl. no.	Details	Session
1.	Adjunct faculty of the Dept. of Biotechnology, Berhampur University	2020-21
2.	Adjunct faculty of the Dept. of Marine Science, Berhampur University	2020-21
3.	Visiting faculty of the Dept. of Biotechnology, Khallikote University, Berhampur	2020-21