

Resume

Subhranshu Sekhar Samal

Email: ssubhransu@gmail.com, **Contact: 8884089365**

EDUCATIONAL QUALIFICATIONS

Degree	University/Institute	Year	Division
PhD (Physics-Materials Science and Nanotechnology)- Continuing	NIT Arunachal Pradesh	July 2021 onwards	**Continuing (8.75/10)**
PGDBM (HR &Project Management)	University of Hyderabad (Central University), Hyderabad	2014	**First**
MSc(Physics)-Electronics and Computer Science	National Institute of Technology Rourkela (NIT Rourkela), Odisha	2006	**First**
BSc (Physics Honours) with Electronics	Utkal University (Stewart Science College, Cuttack), Odisha	2003	**First division and distinction**
+2 Science (PCM Electronics)	CHSE-Odisha (Stewart Science College, Cuttack), Odisha	2000	**First**
Matriculation	BSE-Odisha (KD Bidyapitha, Jajpur), Odisha	1998	**First**

SUMMARY OF PROFESSIONAL EXPERIENCE:

17+ years' experience in nanotechnology research, liaison with Government funding agencies (DST, DRDO, BRNS, MHRD, MoES, MNRE and other labs), grants and project management, new lab establishment, business development, public relation, scientific co- ordination, communication, impact analysis of research output and evaluation, education and scientific and educational outreach through conferences, workshops, technical meets and training programs among student aspirants and early & mid- career scientists.

ADMINISTRATIVERESPONSIBILITIESHANDLED (2007-2022)

- Member of University selection committees for scientists/scientific assistants and JRFs (2007-2014)
- Member of University purchase committee for scientific instruments of Sathyabama University (2007-2014)
- Advisory/Technical committee member for various conferences/workshops/trainings
- Member of event management committee and new program initiative forum
- Head of Scientific outreach and public relation committee (2008-2013)
- Member of Advisory committee for scientific and public outreach, SIT Tumkur
- Team Lead for measurements and evaluation, MeitY, GoI funded ITRA (Oct 2016 to April2017)
- Vice President NIT Rourkela Alumni Association (2014-2016) for South Zone
- Consultant for establishment of Advanced Center for Nanoscience and Nanomedicine- AU Rajasthan, Jaipur (Jan-2016 to Sept 2016)
- Programme Co-ordinator for PMU, ARCI, GoI funded by DST (April2017- till date)

AWARD AND HONOURS

- Young Achiever Award (Scientific Coordination and Outreach) by VDG Professional Body, Tamilnadu,9th Sept-2022
- Rastriya Vidya Saraswati Award for Socio-Economic Growth by Global Achievers Foundation at Constitution Club, New Delhi on15th June, 2012.
- Elected as Vice-President (South Zone) for NIT Rourkela Alumni Association from2014-2016.
- Best Paper Award in the national level technical symposium confluence 2k6 (Physics department) Organized by NIT Rourkela.
- Best Paper Award in the national level technical symposium confluence 2k6 (Mining engineering department) organized by NIT Rourkela.
- Best Paper Award in the national level technical symposium confluence 2k6 (Ceramic engineering department) organized by NIT Rourkela.
- Vandana Chowdhury Memorial Award -2002 from Stewart Sc. College, Cuttack for securing highest percentage marks in Physics Honours.
- Best paper award in International conference on "Emerging Scenarios in Space Technology and Applications (Advanced Materials and Reliability) Organized by SU and ISRO, Bangalore, 13-15 November,2008
- Best paper award in Orissa Bigyan Congress (ISCA, Bhubaneswar Chapter, India) organized by OES, Dec 23-24'2008.
- Biography Listed in Marquis Who's Who for science and engineering 29thedition,2012 and 31st edition-2014
- Best paper award in INTERACT-2010 (in association with DRDO & IEEE) held at SU- 2010.

Position & Affiliation	Nature of Work	Duration
CEO, AIC-AUDF, Ambedkar University , New Delhi	Chief Executive of Atal Incubation Centre (AIC) –AUDF sponsored by AIM-NITI Aayog (Administration, management, capacity building, industry relation and outreach)	9.12.2022 to 29.09.2023 (9 months)
Project Co-ordinator, Programme Management Unit (PMU), International Advanced Centre for Powder Metallurgy& New Materials (ARCI)-An Autonomous Institute under DST-GoI, Gurgaon,Haryana -122003	• Scientific co-ordination • Project Management • Data Analysis • Consolidated techno- • financial report generation • Impact Analysis of capacity building programme • Co-ordinating with Scientists, external experts and team PMU)	26.04.2007 to 08.12.2022 (5 y-8m)
Senior Scientific Officer, Information Technology Research Academy- Media Lab Asia MeitY, Govt of India, New Delhi	• Scientific-ordination • Performance measurement • Impact analysis of funding • Funding Management	17.10.2016 to 24.04.2027 (6 months)
Honorary Consultant, Amity Centre for Nanoscience and Nanomedicine, Amity University Rajasthan , Jaipur	• Lab Design • Mentored young faculties to submit research proposals • Initiated collaborations • Arranged international conferences	Jan -2015 to Sept-2016
Assistant Professor in Physics, Siddaganga Institute of Technology (SIT)-Tumkur, Karnataka-572103 & Business Development Manager (R & D), Center ofApplied Research &	• Teaching Engineering Physics • Overall Lab in-charge • Student Counseling • R & Coordinator • ISO coordinator	06.2014 to 02.12.2015 (2 years)

Nano- Technology (Centerof ART),SIT-CoE- Nanotechnology, Tumkur, Karnataka-572103	• Networking among funding agencies and decision makers for sponsored research • Business development • Communication& outreach • Monitoring of TEQIP funding	
Scientist-C and D, Centre for Nanoscience & Nanotechnology, Sathyabama University Campus,Chennai-600119	• Research Investigator in funded projects (ADE, BRNS, DBT and In- house projects) • Co-ordinator for workshop, conferences &training programs • In-charge for consultancy and outreach activities • Point of contact for R & D proposals and related issues • Inter departmental coordinator for research and outreach • In-charge public relation committee and media outreach.	24.09.2007 to 13.12.2013 (6+ years)
Junior ARCI Fellow, Centre for Carbon Materials, ARCI (Under DST), Hyderabad	Research in ARCI in-house project under Dr. P. K Jain (Scientist-F and Head), centre for carbon materials, ARCI, Hyderabad	10.08.2007 to 21.09.2007
Project Fellow, Dept of Metallurgical and Materials Engg, NIT Rourkela (Voluntary position)	Worked in DST sponsored WOS-A project under Dr. Smrutisikha Bal (Women-Scientist)	June 2006 to July 2007

SUMMARY OF EXPERIENCE (2007-2022)

ARCI (autonomous lab under DST GOI), Hyderabad
Duration: 10.08.2007 to 21.09.2007

Responsibilities	**Role: Junior ARCI Fellow**	**Team size: 10**

I was selected as Junior ARCI Fellow in ARCI (DST), Hyderabad and was posted in centre for carbon materials and worked in in-house project of ARCI in the area of carbon nanotube based composite materials. I was involved in research on polymer-based CNT composites and day to day activity of the lab.

Centre for Nanoscience and Nanotechnology (CNSNT), Sathyabama University, Chennai as a scientist.

Duration: :24.09.2007 to 13.12.2013 (6 years -3 months)

Responsibilities	**Role: Scientist**	**Team size- 35**

- I worked as a scientist in the area of nanotechnology and materials science. During my tenure at CNSNT,
- I was involved in following activities:
- Handling sponsored (BRNS, IGCAR, ADE-DRDO, and DBT) and in-house R&D projects (Establishment of advanced nanotech facilities) as Principal Investigator and Co- Investigator.
- Independent organizer for national and international conference, training programmes and workshops (conducted more than 10conferences).
- Mentoring & guidance of UG/PG student for their final year projects.
- Mentoring university students for participating in short term projects, industrial training & conferences
- Involved in procurement process like import of foreign equipment (FE-SEM, XRD, AFM, RF/DC/E- BEAM/CVD, PLD Units and other microscopes) from different countries starting from Request for Proposal, custom clearance, installation, training, certification and final payment.
- Co-ordinator for in-house training programs for UG/PG/PhD and external faculty and scientists from various R&D organizations in the field of advanced characterizations and synthesis of nanomaterials (conducted more than 10 training programs).

- Head of university new program initiative forum and scientific and public outreach activities.
- Member for editorial board of various conference proceedings.
- Member of selection committee for JRF/SRF/ Scientific Assistants/ Senior Scientific Assistants.

Center of Applied Research and Nano- Technology, SIT- Tumakuru
Duration: 06.01.2014 to 31.05.2014

Responsibilities	Role: Business Development Manager (R & D)	Team size: 20

- Networking among Govt/private agencies and decision makers to attract funding for sponsored research in the CoE established by TEQIP-II, MHRD at SIT-Tumkur.
- Procurement and indigenous development of equipment.
- Organizing workshops and conferences for collaborators.
- Developing collaboration among various departments and national institutes for the progress of the activities of CoE on Nanotechnology.
- Identifying UG/PG students from the institute and other institute under VTU, Belagavi for short term training as a part of HRD activity of the CoE sponsored byTEQIP-II, MHRD. Involved in awareness programs for school students towards engineering education.

Department of Physics, SIT- Tumakuru as Assistant Professor in Physics
Duration: 01.06-2014 to 02.12.2015

Responsibilities	Role: Assistant Professor-Physics	Team Size: 15

- Teaching Engineering Physics to B.E/B.Tech students (Classsize60-65).
- Lab classes for Physics for B.E/B.Tech students (Class size15-18).
- Co-ordinator for ISO and research in the department research centre (physics).
- In-charge for 7 branches of engineering- ECE (1), CSE (2), ISE (1), TCE (1), Mechanical (2) (nearly 420 students) for engineering physics from June -2014 to till date including teaching, mentoring, keeping attendance record, evaluation (quizzes and tests), grading of CIE marks and finalizing the credit.
- Designed and mentored new lab development of physics department (Nanocomposites and Materials Research Lab funded by the institute).
- Member of Advisory committee for scientific and public outreach/relations.
- Departmental In-charge for weekly seminar.
- Achieved more than 90% results on average in all sections for engineering courses.
- Conducted science and technical quizzes for all the students (around 250 students) in regular intervals for creating awareness of science & technology.

ITRA- Medial Lab Asia (Ministry of Electronics and IT), NewDelhi
Duration: 17.10.2016 to 24.04.2017

Responsibilities	Role: Senior Scientific Officer	Team Size: 40

- I worked in project co-ordination activities of ITRA, Media Lab Asia (Meity- GoI), New Delhi in domains of project management, project execution, evaluation process and impact analysis of ITRA-Mobile (8 projects) and ITRA- Water (5) Projects covering 38 institutions in India.
- IdentificationofquantitativeparameterstostudytheimpactofITRA-Mobile and Water (13) projects in capacity building, research & development, curricular impact, research eco-system, social sensitivity and outreach with reference to a period the preceding the project initiation by the investigators of the projects.
- Created repository for the publications which came out of the ITRA funded projects in last3years.
- Compared the performance of ITRA projects with other schemes of MeitY in the related area.
- Interacted with the startup teams which came out of the ITRA projects for further realization of their plans.
- Created repository and graphical presentations for the human resources, mentors, reviewers, research scholars, travel support, ToT, services, consultancy activities, workshop/conference/seminars, Mentor interactions, curricular impacts, outreach and social sensitivity activities of ITRA funded projects (13 projects,

38 institutions and 53 investigators **ARCI (autonomous lab under DST GOI),Gurugram** **Duration: 24.04.2017 to 08.12.2022 (5 years and 8 months)**		
Responsibilities	**Role: Head-PMU, ARCI, Gurugram**	**Team Size: 30**
I was working on the flagship programme of DST entitled "Scouting and nurturing young talents in science, engineering and medicine" (One of the biggest capacity building programme in science and technology). I was heading the project for the various components like data management, analysis, decision making and co-ordination between team DST and ARCI-PMU.		

MAJOR PROFESSIONAL INITIATIVES IN NANOSCIENCE & NANOTECHNOLOGY

- Established advanced nanotechnology and characterization facilities in 2 years (2011-2013) with all sophisticated facilities like FESEM (Carl-Zeiss). AFM (NT-MDT), XRD (Rigaku), RF unit (Plassys), E- Beam set up (Plassys), DC and thermal (Hindhivac), Microscopes (Olympus), Epifluroscence microscope (Nikon), PLD set up (Microtech Italy), Metallographics lab (Streuers), Chemical and Bio- lab.
- I was involved in planning, import, execution and successful implementation of the above facilities.
- I conducted national/international conferences (7), workshops (2) and training programs (10) funded by govt. agencies like ISRO, DRDO, DAE- BRNS, MoES, MNRE, DST and other agencies independently Conferences: RSTS&CC-2010(ISRO), INTERACT-2010 (DRDO), TRESAC-2010 (MoES), TRESAT- 2012(MoES), NAMEE-2012(MoES), ICONSET-2011(DAE-BRNS), ICANMEET-2013(MNRE) Workshops: WATT-2012, REDIN-2013
- I was intensely involved in planning, execution,fund raising and editorial role.
- I edited 6 conference proceedings: TRESAC-2010, NAMEE-2012, TRESAT-2012, INTERACT- 2010, ICONSET-2011 AND INTENSE-2017.
- Training: 10 self-sustaining "Hands on training on thin films and characterization techniques (FESEM, XRD, AFM and synthesis techniques)" were arranged during 2011- 2013.

I was the architect of the whole program with help of the scientific assistants

PUBLICATIONS:

JOURNALS

1. S. S. Subhranshu and Ashank Bharati, Gap in engineering education with special reference to nanotechnology, *Materials Today: Proceedings*, Volume 10, 2019, Pages 121-135, ISSN: 2214-7853. DOI: 10.1016/j.matpr.2019.02.200.
2. Shubha A, S. R. MANOHARA, and S. S. Subhranshu, Improved dielectric properties of graphene reinforced polyvinylpyrrolidone nanocomposites, *Materials Today: Proceedings*, Volume 10, 2019, Pages 3-7. ISSN: 2214-7853. DOI: 10.1016/j.matpr.2019.02.180.
3. S. R. Manohara, S. M. Hanagodimath, L. Gerward, and S. S. Subhranshu, Energy-absorption buildup factors of some fluorides and sulfates: thermoluminescent dosimetric materials, *Materials Today: Proceedings*, Volume 10, 2019, Pages 20-24. ISSN: 2214-7853. DOI: 10.1016/j.matpr.2019.02.183.
4. S. S. Subhranshu and S. R. MANOHARA, Nanoscience and Nanotechnology in India: A broad perspective, *Materials Today: Proceedings*, Volume 10, 2019, Pages 151-158. ISSN: 2214-7853. DOI: 10.1016/j.matpr.2019.02.200.
5. S. R. Manohara, Subhranshu Sekhar Samal and G. E. Rudreshappa, Humidity sensing properties of multiwalled carbon nanotube/polyvinyl alcohol nanocomposite films, *Nanoscience & Nanotechnology-Asia*, Volume 6, Number 2, 2016, Pages 128-134. ISSN: 2210-6812. DOI: 10.2174/2210681206666160328201458. Citations > 6. H-Index: 11. Ranking: Q4.
6. Subhranshu Sekhar Samal, S. R. MANOHARA, V. S. Harikrishnan, K. M. Mithil, M. S. Chethana, K. M. Meghana, and Nandeesh Changavar Matt, Physics: A key discipline for development of engineering & technology and stable career option, *Bulletin of the Indian Association of Physics Teachers*, Volume 7, Issue 11, November 2015, Pages 264-268. ISSN: 2277-8950.
7. S S Samal, Vinita Vishwakarm a, D Ramachandran, Study of Antibacterial Activities of Carbon Nanotube

Based Epoxy Composites Prevent Biofouling in Marine Environment: A Lab Scale Approach, Marine Engineering Frontiers, Vol.1, Issue-3, pp 49-52, 2013
8. L Manoj, Vinita Vishwakarma, S S Samal & S Seeni, Green synthesis of silver nanoparticles using hypericin rich shoot cultures of Hypericum hookerianum and evaluation of antibacterial activities, Journal of Experimental Nanoscience, Vol.10, No.3, pp 181-188, 2013
9. J. Satapathy; M. V. R. Reddy;S. S. Samal, Synthesis and characterization of MgxCu1−xNb2O6 (x=0, 0.2, 0.4, 0.6, 0.8, 1) for LTCC application, Materials Research Innovations, Volume 17, pp 161- 166, 2013
10. Ramachandran, Vinita, S S Samal, Nanophase modification of concrete for enhancement of microbial properties and durability: present status and future scope, IEEE Xplore, ISBN: 978-1-4673-0074-2, DOI: 10.1109/IC ONSE T.20 11.6167889, 2012
11. R.P.George, Vinita Vishwakarm a, S.S. Samal and U Kamachi, Mudali, Current understanding and Future Approaches for Controlling Microbial Influenced Concrete Corrosion: A Review, Concrete Research Letters, Vol 3 (3), 491 –506, 2012
12. Manoj Lanka, S S Samal ,Pavan Kumar Thin Film and Conductive Coatings for EMI Shielding Applications: An Overview, Journal of ECCSA (ISSN: 0975-5098), Vol. 3, No.2, pp215-218, 2012
13. Somshekhar Mohanty & S Ssamal, Green Technology in Construction, IEEE XploreDOI: 10.1109/R STSCC.201 0.5712887, Electronic ISBN: 978-1-4244-9183-4, 2011
14. Mohanty, Somshekhar; S S Samal; Sathyamurthy, Futuristic humanoid robot of twenty first century IEEE Xplore, SBN: 978-1-4244-9004-2(Digital Object Identifier: 10.1109/I NTERACT. 2010.5706223)185-188, 2011
15. Skandhapras aa d, A.L.; S S Samal; Sathyamurthy, S, Selection of materials for the design and development of electromechanical rotary joint, IEEE Xplore, ISBN: 978-1-4244-9004-2, (Digital Object Identifier: 10.1109/I NTERACT. 2010.5706150), 250 -253, 2011
16. Wribhu, Atirek; Siddiqui, Md. Sanaullah; S S Samal; Sathyamurthy, S, Design and analysis of conveyor chain for automatic ammunition loading machine, IEEE Xplore ISBN: 978- 1-4244-9004-2 (Digital Object Identifier: 10.1109/I NTERACT. 2010.5706150), 239 -240, 2011
17. S. Bal, S.S Samal and U.K.Mohanty, Mechanical and Microstructural Analysis of Carbon nanotube Composites Pretreated at Different Temperatures, American Journal of Materials (Scientific & Academic Publishing), DOI: 10., 5923/j.materials.20110101.02, 5-11, 2011
18. Greeni Navin & S S Samal, Factors affecting the power consumption in a CNTFET logic gate, Journal of ECCSA (ISSN: 0975-5098), Vol-2, Issue-2, pp 138-141, 2011
19. S Samal , Manoj Lanka, Polymeric Materials for Electromagnetic Interference Shielding, Journal of ECCSA (ISSN: 0975-5098), Vol. 3, No.1, pp 192-194, 2011
20. S S Samal, P. Jeyaraman and Vinita Vishwakarma , Sonochemical Coating of Ag-TiO2 Nanoparticles on Textile Fabrics for Stain Repellency and Self- Cleaning- The Indian Scenario: A Review, Journal of Minerals & Materials Characterization & Engineering (IMP- USA), Vol. 9: 6, 519-525, 2010
21. S S Samal and N. Manoharan, Safety and Risk Associated with Nanoparticles- A Review, Journal of Minerals & Materials Characterization & Engineering (IMP- USA), Vol. 9: 5, pp 455-459, 2010
22. Subhranshu Sekhar Samal, Role of Temperature and Carbon Nanotube Reinforcement on Epoxy based Nanocomposites, Journal of Minerals & Materials Characterization n & Engineering (IMP- USA), Vol. 8 No.1, 25-36, 2009
23. Subhranshu Sekhar Samal & S. Bal, Carbon Nanotube reinforced Ceramic Matrix Composites: A review Journal of Minerals & Materials Characterization & Engineering (IMP-USA), Vol. 7, No.4, 355-370, 2008
24. S. Bal, S.S Samal and U.K.Mohanty, Effect of Mechanical Properties on Fracture Surfaces of Carbon Nanotube Composites Pre-treated at Different Temperatures, NICE Journal of Emerging Technologies, Vol-3, No.1, ISSN No.: 0973-2993, 2008
25. S Bal & S S Samal, Carbon Nanotube Reinforced Composites: A state of the art, Bull. Mater. Science (Springer and IASc), Vol. 30,No. 4379–386, 2007

BOOK CHAPTERS

1.Ceramic matrix composite: carbon fibre reinforced, Wiley-Encyclopedia of Composites, 2012 Ceramic Matrix, Subhranshu S. Samal and Manoj Lanka, published: 20 July 201, https://doi.org/10.1002/9781118097298.weoc029.

2.Nanoscience and Nanotechnology: Research and Career Opportunities in India, Excel Publisher, 2009, New Delhi

Shubha A, S. R. MANOHARA, and S. S. Subhranshu, "Chapter 1: Nanomaterials: Types of nanomaterials and their fundamental physicochemical properties", Nanotoxicology: Toxicity evaluation of nanomedicine (1st ed.), July 15, 2021, pp. 1-20, Publisher: CRC Press (Taylor & Francis group), edited by H.K. Daima, S.L. Kothari, and S.K. Bhargava, Catalog #: 310845, ISBN-13: 978-0367266479. DOI: 10.1201/9780429299742.

4. S. S. Subhranshu, Harjeet Nath, and S. R. MANOHARA, "Chapter 17: Current guidelines and regulatory challenges, insight into the legal, societal and ethical issues of nanomaterials", Nanotoxicology: Toxicity evaluation of nanomedicine (1st ed.), July 15, 2021, pp. 445-490, Publisher: CRC Press (Taylor & Francis group), edited by H.K. Daima, S.L. Kothari, and S.K. Bhargava, Catalog #: 310845, ISBN-13: 978-0367266479. DOI: 10.1201/9780429299742.

5. S. S. Subhranshu, S. R. MANOHARA, V. Vinita, "Chapter 10: Green synthesis of graphene and its derivatives", Graphene extraction from waste: A sustainable synthesis approach for graphene and its derivatives (1st edition), February 1, 2023, Pages 305-318. Publisher: Elsevier Science Publishing Co Inc., edited by C. N. Hussain, A. K. Srivastav, C. S. Tiwary, and J. M. Tour, ISBN: 9780323909143. DOI: 10.1016/B978-0-323-90914-3.00011-5

CONFERENCE PUBLICATIONS:

1.Influence of Dispersion States of Carbon Nanotubes on Mechanical Properties of Epoxy Nanocomposites – S. Bal and S.S. Samal, Recent Trends in Mechatronics Nanotechnology andRobotics April' 14 2006, NIT Rourklea (Full paper)- National
2.Carbon Nanotube Reinforced Polymer Composite – S.Bal& S.S Samal, Eighth International Conference on Nanostructured Materials (Nano 2006), Department of Metallurgy, IISc, Bangalore- 560012,August 20-25 2006. (Poster)- International
3.Polymeric Nanocomposites: An advanced material- S. Bal and S.S Samal, Recent Advancesin Physics, Dalmia college, Rajgangpur Feb. 4-5, 2006. (Poster)- National
4.Sonicated low volume fraction Carbon Nanotube Reinforced Epoxy nanocomposites and the role ofdispersion on its mechanical properties -Smrutisikha Bal &Subhranshu Sekhar Samal, National Review and coordination meeting on Nanoscience and Nanotechnology, ARCI Hyderabad
-feb'21- 23'2007.pp226 (Poster)- National
5.Investigation of Microbiological aspects of Biodegradation/Bio deterioration of concrete by Sulphu oxidizing Bacteria/Fungi- R.PGeorge, VinitaVishwakarma, SSSamal, N Manoharan, 12th Orissa Bigyan Congress, Bhubaneswar (Dec 5-6/2009), pp 159 (Abstract)- National
7.The reinforcement role of Carbon ulphurda of Acrylo-Nitrile Butadine Styrene (ABS)/PolyCarbonate (PC composites for Electromagnetic Interference Shielding Applications", Subhranshu S. Samal& S Sathyamurthy, in INCEMIC 2010 held at NIMHANS, Bangalore,25- 26
November 2010.pg. 149-153, ISBN: 81-963575-2-2 (Full Paper)- International
8.Eco-friendly concrete-D.Ramachandran, Vinita Vishwakarma, and Subhranshu Sekhar Samal- Proceedings ofNational conference Trends in Renewable Energy, Sources , Applications & Climate Change (TRESAC-2010), Sathyabama University sponsored by MoES, New Delhi, 23-25 July,2010, PP. 66 (Poster)- National
9.Microbially induced deterioration of concrete- D.Ramachandran, Vinita Vishwakarma, Subhranshu SekharSamal,R.P.George,P.MuraleedharanandR.K.Dayal,ProceedingsofNationalconferenceTrendsin Renewable Energy, Sources , Applications & Climate Change (TRESAC-2010), Sathyabama University sponsored by MoES, New Delhi, 23-25 July,2010, PP. 70 (Poster)- National
10. Preparation and Characterization of Rutile TiO2 Nanoparticles using Sol-Gel Method-Manoj L, Priya Madhuri. K, B. Deva Prasad Raju, S. S. Samal and Vinita Vishwakarma, Proceedings of the "National Nanotechnology Meet on Energy and Environment" organized by CNSNT-SU, 3-5 September, 2012,ISBN: 978-81-922119-6-1, pp 190-192 (Full paper)- National

11. Study of Antibacterial Activities of Carbon Nanotube based Epoxy Composites, 100 ISC- Kolkata,Material Science Section- S SSamal, Vinita V, D Ramachandran, PP 79-80, Proceeding of ISC-2013 (3-7Jan-2013). (Poster)- National
12.S.S Samal and S.R Manohara, Morphogical study of fracture surface of multi-walled carbon anotube-based epoxy composites, Proc. of 2nd International conference on Nanostructures Materials and Nanocomposites (ICNM-2014), held during December 19-21, 2014 at Centre for Nanoscience and Nanotechnology, Mahatma Gandhi University, Kottayam, Kerala
13.S.R Manohara and S.S Samal, Experimental and theoretical study of dipole moments , Proc. of 2nd International conference on Nanostructures Materials and Nanocomposites (ICNM-2014), hel during December 19-21, 2014at Centre for Nanoscience and Nanotechnology, Mahatma Gandhi University Kottayam, Kerala
14. T. N Rajashekhara, M. V Murigendrappa, S. S Subhranshu, P. N Navya, S. R Manohara, Preparation and characterization of spectroscopic investigation of PEOX/PVOH blend films, Proc. International conference on Nanostructures Polymeric Materials and Polymer Nanocomposites (ICNPM-2015) held during 13-13 November, 2015, Centre for Nanoscience and Nanotechnology, Mahatma Gandhi
University, Kottayam, Kerala.
15. Improved dielectric properties of graphene reinforced polyvinyl pyrrolidone nanocomposites- A Subha, S. R Manohara, S.S Samal (presented in INTENSE-2017), 19-21 August 2017 held at AUR, Jaipur sponsored by ICMR- To be published in Materials Today Proceedings- Elsevier.
16. Gap in engineering education with reference to nanotechnology in India, Ashank Bharati and S S Samal (presented in INTENSE-2017, 19-21 August 2017 held at AUR, Jaipur sponsored by ICMR.

POPULAR SCIENCE ARTICLES

BULLETIN OF IAPT (A MONTHLY JOURNALOF PHYSICS EDUCATION AND RELATED AREAS) (ISSN 2277-8950)

- Physics:a key discipline for development of engineering and technology and stable career option, pp 264-268 (Vol.7,No-11, Nov-2015) – S SSamal, SRManohara

NANODIGEST (RNI – APENG/2009/28291): THE PREMIER NANOTECHMAGAZINE OF INDIA

- Nanotechnology in Automobile Sector: the big impact of small particles (May-2011 issue) – S S Samal & ALSkandhaprasaad
- Nanoinbiomaterials-Issues and Challenges-SSSamal& K Gobi Sarvanan(July-2013)
- Contribution of IT to the nano world: Amrita Samal &S SSamal, pp 38-41 (August-2011)

ELECTRONICS FOR YOU (SOUTH ASIA'S MOST POPULAR ELECTRONICS MAGAZINE)- (ISSN:0013-516X):

- Artificial Intelligence Meets the Real World (October-2011)
- Carbon nanotubes: the promising candidate in electronics (Dec-2013)
- Strategic Development Pattern in Robotics: Technological Advancement of 20-20 India (January- 2014)
- Energy education and research initiative in India – S S Samal, Amrita Samal and Ananya Nayak, pp82- 83, vol.46. No.9,September-2014.
- "Automotive infotronics & informatics: an emerging multidisciplinary engineering platform for industrialdevelopment"- S SSamal, Ashank Bharathi, Amrita Samal published in Sept-2016.
- LASER: An innovative tool for multidisciplinary applications-SS Samal, Ashank Bharathi, Amrita Samal (2017).
- Nanoscience and Nanotechnology in India: An analysis (October-2018)
- Electromagnetic Interference And Compatibility: Indian Scenario- S. S Samal, S.R Mnohara, Amrita Samal, Nov-2020
- Green IT and Electronics- S.S Samal, Amrita Samal & Ashank Bharat, Dec-2020
-

EMERGING SCIENCES (A MONTHLY SCIENCE JOURNAL) – (ISSN: 0976-4100)

- Optical wireless communication, Vol.3, No-10, Oct-2011
- Green buildings: the futuristic weapon to prevent global warming, Vol.III, No-3, March-2011
- The scenario of renewable hybrid energy sector in India, Vol.II, No-1, Jan-2011
- Green nanotechnology: the answer to waste management, Vol.3, No-8, August-2011
- Nanotechnology in forestry: away forward, Vol.3 No-12, Dec-2011
- Role of nanotechnology in corrosion science, Vol.4, No-3, March - 2012

SCIENTIFIC INDIA

- Beating Plastics Pollution- A serious need of the hour, Issue: 30 July 2018, Subhranshu Sekhar Samal & B.C Jena.

SCIENCE HORIZON

- Promoting Green Footprints in Construction: A Sustainable Techno-Management Approach for Developing India- S. SSamal & S. Mohanty, March-2014, pp 12-18, Science horizon (issue-3).
- Education and research opportunities in physics in India: A fresh look- S S Samal & Amrita Samal, Volume-2. Issue-2,39-46pp, Feb-2017.
- Ecological and environmental informatics: Re-visiting the broad perspectives, pp 35-41, Issue 10, Vol-3, Oct- 2018Edition
- INTERNET OF THINGS, MACHINE LEARNING & CYBER PHYSICAL SYSTEMS: NOW AND THE FUTURE, published in Dec-2023.

EDITORIAL RESPONSIBILITIES

- Area editor for material science and nanotechnology for emerging sciences(ISSN:0976-4100)
- Associate Editor for journal of ECCSA, Chennai(ISSN:0975-5098)
- Member of Editorial Board for proceedings of ICONSET-2011 (28-30Nov'2011)
- Member of Editorial Board for proceedings of TRESAC-2010(1-3July'2010)
- Member of Editorial Board for proceedings of TREAST-2012 (1-3 Feb'2012)
- Member of Editorial Board for proceedings of NAMEE-2012 (3-5 Sept'2012)Guest editor for Materials Today Proceedings, Vol.10(Part-1),2019

OUTREACH ACTIVITIES IN SCIENCE AND TECHNOLOGY

INVITED & MOTIVATIONAL TALKS

- Indo-Swiss Bonding (2008) organized by Anna University, Chennai.
- INTENSE-2017 organized by ICMR, DST-Rajasthan and Amity University, Jaipur.
- RDPAP-2012 organized by Sathyabama University in association with CNSNT.
- Delivered a talk on "Careers in Physics, Nanotechnology and Materials" in Science in Stewart Science College-Cuttack,Odisha.
- Delivered a talk on "Research in Green Technology in India" in Stewart Science College-Cuttack, Odisha.
- FDP on "Role of ICT for Successful Implementation of NEP: 2020" organized by Government Degree College, Teliamura and IIT Roorkee from 2-4 Jan 2024.
- FDP on "Writing and securing grants for technical institutions" organized by IQAC, RERFGI, Kolkata from 27-29th June 2023

MOTIVATIONAL TALKS

- Conducted and mentored Saroj Majhi Memorial Science Debate for school students (IX and X) on "Importance ofScience and Technology in India: in Jajpur-Odisha.
- Delivered motivational talks for students to pursue science as a career for Birsa Munda School, Rourkela
- Conducted Saroj Majhi Memorial lecture on "Higher studies after UG engineering and beyond- A career ahead", inTumkur-Karnataka.
- Motivational talks in various institutes across India for UG, PG and school students to pursue a career in science andtechnology (more than 10)
- Delivered talks on education, activity based learning and remedial measures for Teachers and Parents through onlineplatforms (Sept-2020)

QUIZ & MENTORING PROGRAMS

- Quiz Program on National Science Day- 2010 for Scientists and research scholars (Chennai).
- Quiz Program on National Technology Day- 2012 Quiz for Scientists and research scholars (Chennai).
- Green Meet- 2009 on National Science Day for UG (Science) students in Cuttack, Odisha.
- Quiz published in Science horizon (odisha)-OBA monthly magazine.
- National Technology Day Quiz for Early and Mid-career scientists (Chennai).
- Think Green Essay contest-2014 for UG (Engg) students in Tumkur.
- National Science Day-2015 Quiz for UG (Engg) students in Tumkur.
- Quiz program on IAF Day quiz for Information science and engineering students (BE-I year) in Tumkur
- Acted as a resource person for Sadhana Charitable Trust for the webinar "Covid-19 in India: Converting challenges in toOpportunities"

WORKSHOPS, FDPS AND MEETS

- Sensor web enablement sponsored by DST, Sathyabama University, 2-3June2008.
- Popular lecture on biotechnology sponsored by DBT Sathyabama University, 17-18July2009. International work shop on bonding and adhesive (Indo-Swiss bonding), MIT-Anna University, 14- 16th Feb2008.
- Summerschoolsprogramme-2005 for 45 days and worked under Dr. Amit Sircar, Scientist-G in the field of hall sensor for plasma diagnostics, IPR (DAE), Gandhinagar,01.06.05 to15.07.05.
- Compatibility issues between cement and chemical admixtures in concrete, IIT Madras, ICI & DST, 9thApril, 2010.
- Popular lecture on biotechnology by sponsored by DBT, Sathyabama University,03.09.2010 to04.09.2010
- Dissemination of innovative technology on organic aquaculture through EM technology, Sathyabama University, 10.01.2011- 12.01.2011.
- 3rd Round table meets on climate change, agriculture, sustainable development & public leadership, Sathyabama University, 4-5 Feb, 2011.
- Workshop on nuclear biological transmutation: history & perspective application, SRM University & IIM Kalpakkam

chapter, 15th Feb, 2011.

- Advanced thin film and characterization techniques sponsored by BRNS, CNSNT, Sathyabama University, 1 to 3 Nov 2012
- National workshop on R &D Proposals: preparation and approach (RDPAP-2012), department of physics, Sathyabama University, 15 Dec-2012
- National Seminar on Research & Developments in Nano-sensors (REDIN-2013) on24thAugust, 2013 organized by Sathyabama University.
- International Technical Seminar "Biotechnology& allied sciences" by TEQIP-II, SIT Tumkur (2015). FDP on "Futuristic materials technology" by TEQIP-II, SIT Tumkur (2015).
- FDP on "Nanomaterials and their electrical, magnetic and catalytic properties" by TEQIP-II, SIT Tumkur (2015)
- Indo-French International Workshop on "Recent Advances and Applications of Conducting Polymer Nanostructures and Nanocomposites" (RA2CPNC) during 23rd-24th June 2021 organized by IIT Mandi sponsored by SPARC-MHRD.
- 2 WEEKS ONLINE SKILL TRAINING ON PLASTIC PRODUCTS MANUFACTURING & TESTING TECHNIQUES organized by CIPET, HYDERABAD (09.08.2021 to 20.08.2021)-On going
- AICTE Training and Learning (ATAL) Academy Online Elementary FDP on "Employee Engagement" from 04/09/2021 to 08/09/2021 at University of Allahabad, Prayagraj (5 days)
- "AICTE Training and Learning (ATAL) Academy Faculty Development Program (FDP) on fundamentals of Novel Materials" from 04/10/2021 to 08/10/2021 at Tripura University (5 days)
- AICTE Training and Learning (ATAL) Academy Online Elementary FDP on "Five-Days Faculty Development Program on "Recent Trends in BioMEMS and Medical Micro-devices: From Devices to Applications"" from 20/08/2021 to 24/08/2021 at National Institute of Technology Silchar (5 days)
- International conference on Higher Education, Research and Innovation-2022, 28-30 July 2022 conducted by S& T, Digital, Pune.
- Webinar on Multiscale materials modelling on 18th Sept2021conducted by DHIO, Bangalore.
- NAAC Sponsored Two-Day online National Seminar on "Quest for Excellence in Innovative Teaching with Blended Learning and Robust Evaluation System in the Light of New Education Policy" held from 12.08.2022 to 13.08.2022 organized by Neheru Memorial College, TN.
- Cognition and learning, 2nd Aug 2022 conducted by Mandsaur University
- Three-day International Workshop on Statistical Data Analysis using Excel, 17-18 Aug 2022 conducted by A2Z Edu-learning Hub.
- Climate Change and Sustainability on 31st July 2021 conducted by PEERRI, Bangalore
- Entrepreneurial Approach on 4th Sept 2021 conducted by Manipal University
- Qualified level-1 international career coach certification by Mindler
- Conference on research to policy conducted by LVPEI, Hyderabad (23 and 24th Sept 2022)
- Online FDP on Embracing Innovation in higher education strategies for pedagogical enhancement held on 2nd Dec 2023 organized by St. Aloysius College Kerala.
- Conference on "Careers in Science and Technology" held on November 5th & 6th, 2022 was organized by S & T Digital, A8, AIC SEED, G1 Building, IISER, Pune, India.
- Generative AI with ChatGPT organized by A2Z Edulearning Hub, Kerala on 23 Oct 2023.
- Five- Day Faculty Development Programme on Gendered Contours of Feminism organized by the Department of Languages, Presidency University, Bangalore, from 26th to 30th September, 2022.
- IEEE EDS Summer School on Recent Trends in Micro/Nanoelectronics Devices (Virtual Mode) 20-24 Aug 2022 organized by NIT Silchar
- Five days International FDP on Emerging Trends in Nanotechnology (ETNT-2021) organized by VIT Bhimavaran and PRL-Ahmedabad from 9th to 13th Nov 2021.
- One Week Online Workshop, Patent SEA - 2024 organized by Innovative Technology Enabling Center - InTEC, CSIR-Institute of Minerals and Material Technology (IMMT), Bhubaneswar during Jan 22-27, 2024.
- Completed 4 weeks **short term course on "Nanotechnology in Optoelectronics"** from the 08 August 2022 to 08 September 2022 conducted by Nano Science and Technology Consortium.
- NAAC Sponsored Two-Day virtual conference on "Quality enhancement of institutions of higher learning: Transformational role of NEP-2020" on 28-29th Nov 2022 organized by St. Aloysius College Kerala.
- E-learning program on Industry 4.0 (2020) organized by Tata Steel.

PROFESSIONAL MEMBERSHIPS

- Life Member for Indian Science Congress Association, Kolkata (Materials Science (LM-18892)
- Life Member of Indian Carbon Society (LM-319)
- Mentor and Associate-Sadhana Charitable Trust (Odisha)

CONFERENCE FUNDING MOBILIZED

SL.NO	NAME	AGENCY	STATUS	ROLE
1.	TRESAC-2010 (National)	MoES	Completed	Co-ordinator
2.	TRESAT-2012 (National)	MoES	Completed	Co-ordinator
3.	NAMEE-2012 (National)	MoES	Completed	Co-ordinator
4.	RSTS&CC-2010 (International)	ISRO	Completed	Co-ordinator
5.	INTERACT-2010 (International)	DRDO	Completed	Co-ordinator
6.	ICONSET-2011 (International)	BRNS-DAE	Completed	Co-ordinator
7.	ICANMEET-2012(International)	DRDO & MNRE	Completed	Co-ordinator
8.	IYL-students seminar (Institute level)	SIT-Tumkur	Completed	Convener
9.	INTENSE-2017 (International)	ICMR andDST-Rajasthan	Completed	Co-Convener
10	JSPS-Hope (9+3) Selection meeting and Newton-Bhava meeting	DST, New Delhi	Completed	Co-ordinator
11	National Startup Day	AIM-NITI Aayog	Completed	Convenor

RESEARCH FUNDING MOBILIZED

12.
Detailed investigations of Microbiological aspectsof bio deterioration of concrete by sulphur oxidizing bacteria/fungi (Co-PI) (Ref No:.2009/36/44-
BRNS/1754)- (2009-2011)
Co-PI
Completed
19.20 Lacs BRNS (DAE)

13.
Development of Carbon nanotube- based epoxy composites (PI) (Ref.
No- ADE/14937/CARS_PS/TMS)- (2010 -2013)
PI

Completed
9.31 Lacs DRDO (ADE)

14.

Modification of concrete structures by Bio- waste (Cow dung) to enhance the durability and anticorrosive properties [BT/PR7436/BCE/8/946/2012]
(2011-2014)
Co-PI
Completed
19.3 Lacs DBT, GoI

15.

Establishment of advanced nanotechnology synthesis and characterizationlab
(Funding by Sathyabama University) -(2011-2013)
Team Leader
Completed
In house project Executed
independently) (20 crores)

16.

"Scouting and nurturing young talents in science, engineering and medicine" sponsored by
DST, GoI (2017-2022)
Project Coordinator
Completed
9.4 crore

PERSONAL DETAILS:

ADDRESS: S/O- LATE. HRUSIKESH SAMAL, BERHAMPUR, PO- MEDUAKUL, VIA-BARI, JAJPUR, ODISHA-755003, MOBILE-8884089365 / 9962369727, DATE OF BIRTH: 19-08-1983 (40+)

PROFESSIONAL REFERENCES

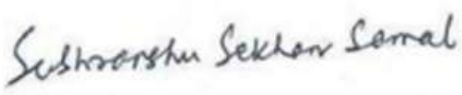
Dr. P K Jain
Associate Director & Scientist-G
Team Leader-Centre for Carbon Materials, ARCI,
Balapur, Hyderabad-500005
Mob: 09849446456
Email: pkjain@arci.res.in

Dr. Vinita Vishwakarma
Professor & Additional Dean (Research)
Galgotias University, Greater Noida, UP
Mob: 09444719383
E-mail: vinitakind@gmail.com

Declaration

I hereby declare that all the information furnished by me are true to the best of my knowledge and belief.

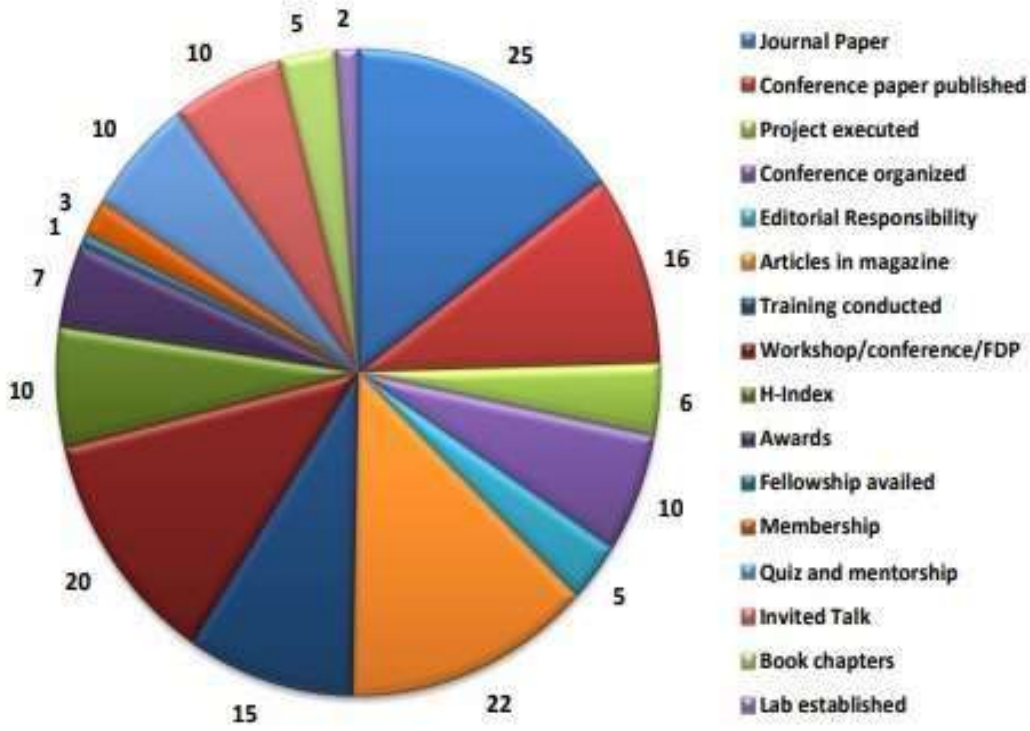
Place: New Delhi
Date: 01-03-2024



(SUBHRANSHU SEKHAR SAMAL)

Subhranshu Sekhar Samal

Key Performance Indicators



Suitability for the post applied

I have 17+ years' experience in scientific co-ordination, project management, capacity building, training, liaison with public funding agencies, alumni relation, outreach and academic & research administration.

During my tenure (2007-2013) at centre for nanoscience and nanotechnology, I was instrumental in development of advanced nanotechnology lab (FESEM, XRD, AFM, PLD, RF, DC, THERMAL AND E-BEAM FACILITY) which catered the need of university as well as various engineering institutions, labs and industries. I was the key organizer for various national and international events(seminar/workshops/conferences) sponsored by various government agencies (DRDO, DST, DBT, BRNS,MNRE,MoES and MHRD) which brought together experts, young researchers and academia to a common forum in various domains of materials, energy, environment, defense and space technologies. I got chance to interact with various funding agencies and experts to create a vibrant ecosystem at Sathyabama University. I was involved in various outreach activities by the University for attracting students towards science and engineering. I created a network among industries and various national labs to utilize the facilities of our nanotechnology labs.

During my tenure (2014-2016) at SIT Tumkur (An autonomous institute under VTU, Belgaum), I was instrumental in development of CoE sponsored by TEQIP- III (MHRD) and collaborated with engineering institutes for engineering outreach. The CoE attracted small institutions to get exposures to various research activities and inspired them to submitresearch proposals to various agencies.

My tenure at ITRA-DIC-MeitY (6 months) was quiet interesting where I got a chance to head the measurements and evaluation team for the impact analysis of the funding for ICT in water and mobile projects spread across 38 leading institutions in the country. The impact of the projects was analyzed through various parameters like research and developments, curricular impact, social sensitivity, collaborative effortsand capacity building.

During my tenure (2017-2022) at ARCI Gurugram (An autonomous R & D centre for DST, GoI) where I was leading the Programme Management Unit of DST–INSPIRE Scheme (Internship, Scholarship, PhD-Fellowships and INSPIRE-Faculty Award) for data acquisition, management, analysis and techno-financial reports. We deal with more than 20,000 stake holders at all level and process their cases for timely release of the financial supports. I co-ordinate with DST team andlead the unit for smooth functioning. I organized several expert committee meetings for evaluation of proposals and monitoring the progress of the individual beneficiaries.

I was the key person for the MIS, Measurements and evaluation verticals of the PMU. Work done to established self-sustained advanced characterization facilities (Techno-management and scientific co-ordination exposure)-6+ years (2007-2013)

- ✓ Initiated the vision of an advanced nanotechnology lab which will cater the need of the students, researchers and industries in south India in the area of materials science and nanotechnology
- ✓ Convinced the founder, VC and Director to start the centre with a clear vision, mission & set of objectives
- ✓ Worked out the action plan for establishing the centre in association with DAE-IGCAR
- ✓ Identified user/target audience
- ✓ Chalked out capacity building plan
- ✓ Procurement, Installation and subsequent training
- ✓ Identified thrust areas of research
- ✓ Identified experts to operate the facilities
- ✓ Developed SoP for the operation and maintenance of the facilities
- ✓ Identified funding agencies and applied grants
- ✓ Collaborated with industries for long term contracts for use of the facilities
- ✓ Conducted outreach activities (workshops, training programs and industry meets)
- ✓ Enhanced professional networking
- ✓ Made the lab self-sustaining through training programs
- ✓ Head Measurements and Evaluation at ITRA-MietY (2016-2017):
- ✓ Impact analysis of funding in the area of ICT in water and mobile communication
- ✓ Coordinated with 56 PIs across 38 institutions on pan India level for evaluation, monitoring and review
- ✓ Developed repository for research outcome of the funded projects
- ✓ Created vectors for parameters like R & D, Curricular Impact, Collaboration, Social sensitivity, Industry-Institute

Linkage

- ✓ Programme Co-orinator at DST-ARCI, Gurugram (2017-2022) - Scientific co-ordination:
- ✓ Heading the PMU of DST-INSPIRE scheme
- ✓ Scientific Coordination with DST and other institutes
- ✓ Standardized SoP for evaluation of applications
- ✓ Data acquisition, management, analysis and delivery
- ✓ Preparation of techno-financial report for fund disbursement and closures
- ✓ Evaluation of research proposal
- ✓ Review of the progress
- ✓ Impact analysis of funding
- ✓ Outreach activities in science promotion
- ✓ Created repository for publication as an outcome of the funding (papers, patents and ToTs)
- ✓ Provided training to juniors on data management, evaluation and delivery
- ✓ Managing a team of 25 members

Dec 2023 to Sept-2023 (As CEO of Atal Incubation Centre sponsored by AIM, NITI Aayog)

- ✓ Fund management
- ✓ On-boarding and up-being of startups
- ✓ Co-ordination with NITI Aayog and other stake holders
- ✓ Managed a team of 11 start-ups incubates and 10 pre-incubates
- ✓ Managed a pool of 20 mentors on various domains

FUNDING AGENCIES INTERACTED:

DST, DBT, MNRE, BRNS, DRDO, MHRD, MOES, NITI AAYOG AND MEITY

RESEARCH LABS INTERACTED:

DAE-IGCAR, ADE-DRDO, NPOL-DRDO, VSSC-ISRO, DST-ARCI, AMITY UNIVERSITY, CENTRAL UNIVERSITY OF RAJASTHAN AND SIT-TUMKUR

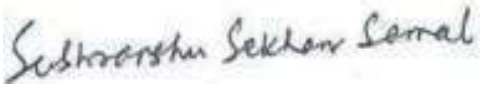
Voluntary Experience in the field of social work (Societal work):

- ✓ I am associated with Sadhana Charitable Trust, Odisha for educating tribal students from 2006 onwards
- ✓ I am a part of Evergreen Association (a voluntary online portal) for creating awareness about science education, environment and green practices since 2000
- ✓ I started a library "Sishu Viaksh Pathagar" in my village with more than 2000+ books
- ✓ I do career counselling sessions for UG students to pursue science and other courses

Consulting Experience@ Amity University, Jaipur: (Jan 2016 to Sept 2016)

I was an honorary consultant for establishment of Amity Centre for Nanomedicine and Nanotechnology, Amity University Jaipur where I was instrumental for development of research proposals, collaborations and industry-institute linkage.

With the above stated experience, I feel myself eligible for the post applied.



(Subhranshu Sekhar Samal)