Dibya Prakash Jena

Asst. Professor, Dept. of Industrial Design, NIT Rourkela

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Department of Industrial Design
NIT Rourkela (www.nitrkl.ac.in)
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Anantapur College Square
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SPECIALIZATION

More than 16 years of experience where almost 9 years in Industries (OEM) and 7 years in teaching and research. Major interest at present is to design and develop various products, instruments, and technologies to industries for strengthening **"Make in India"**.

EDUCATION

DIN Young Visiting Fellowship-2022, Department of Industrial Engineering **(DIN)**, University of Bologna **(UNIBO)**, Viale Risorgimento, Bologna, ITALY May-June 2023
Research Title: Design of periodic scatterers for broadband noise insulation
Supervisor: **Prof. Massimo Garai**

Honorary Research Fellow, Center for Audio, Acoustics and Vibration **(CAAV)**, University of Technology Sydney **(UTS)**, Sydney, Australia June-July 2019/20
Research Title: Design and Development of Broad-Band Sonic Crystal and Metamaterial
Supervisor: **Prof. Xiaojun Qiu**; 2019: Offline & 2020: Online mode

Doctor of Philosophy, School of Mechanical Sciences, CGPA: 8.25, First Class
Indian Institute of Technology **(IIT)**, Bhubaneswar, India August 2014
Thesis Title: Development of Active and Passive Filters for Improving Quality of Acoustic and Vibration based Condition Monitoring; Supervisor: **Prof. S.N. Panigrahi**

Master in Science, Manufacturing Management, CGPA: 8, First Class
Birla Institute of Technology and Sciences **(BITS)** Pilani Dec 2011

Bachelor in Technology, Mechanical (Spl. in Manuf.), 70%, First Class
Sant Longowal Institute of Engineering Technology **(SLIET)**, Longowal May 2004

ACADEMIC EXPERIENCE

Department of Industrial Design July 2015 – Till Today
National Institute of Technology (NIT), Rourkela, India (Assistant Professor)
Responsibility: Teaching and Research

Department of Mechanical Engineering March-July 2015
BITS Pilani, Hyderabad Campus (Assistant Professor)
Responsibility: Teaching and Research

INDUSTRIAL EXPERIENCE

Tribometers, Software Division Dec. 2014 – Feb. 2015
DUCOM Instruments, Bangalore, India (Sr. Product Dev. Eng.)
Responsibility: LabVIEW Architect for developing SW for Tribometers

Car Multimedia Division, Ford Navigation System Oct. 2007 – Dec. 2011
Robert BOSCH, Bangalore, India (Specialist)
Responsibility: LabVIEW Architect, Automation for Infotainment System

Embedded System, John Deere Tractors Aug. 2006 – Sept. 2007
John Deere Technology Center, Pune, India (Sr. Software Eng.)
Responsibility: LabVIEW Architect, Automation System for ECUs

Automation Group, External Clients Dec. 2005 – Aug. 2006
EICHER Engineering Solutions, India (Analyst)
Responsibility: LabVIEW Architect, Machine Automation

Automation Group, External Clients June. 2004 – Dec. 2005
Captronic Systems, Bangalore, India (Sr.Programer)
Responsibility: LabVIEW Architect, Test and Measurement Automation

AWARD, RECONGNITIONS AND ACHIEVEMENTS

- Head of the Department 2022-2024, Department of Industrial Design, NIT Rourkela.
- Established "Advanced Materials for Design" Laboratory in Department of Industrial Design, NIT Rourkela (Funded by Projects; 2022).
- Established "Underwater Acoustics Laboratory" in Department of Industrial Design, NIT Rourkela (Funded by Projects; 2020).
- Established "Industrial Acoustics Laboratory" in Department of Industrial Design, NIT Rourkela (Funded by Projects; 2016).
- Vibration, Acoustics and Underwater Acoustics Consultant, Identified by JOST Engineering Pvt. Ltd. (B&K Partner in India), 2021.
- Session Chair in International Conferences in PHENMA-2017 and WESPAC-2018.
- Best Paper Award, PHENMA 2017-International Conference in 2017.
- Sir Thomas Ward Memorial Prize (2014), by The Institution of Engineers (India).
- Runners up, Best Lab VIEW Programming in India, "National Instruments" in 2012.

SPONSORED RESEARCH PROJECTS

1. **D.P. Jena (PI from India)**, D. Choudhuri (Co-PI India), Indian Rubber Manufacturers Research Association (Co-PI India), Naval Group (PI France), ISEN-JUNIA France, (Co-PI France) "Underwater Acoustic Composite Metamaterial (RACCOM)", **CEFIPRA** a Indo-French Collaboration, Recommended by CEFIPRA 155.5 Lakhs where **70.75 Lakhs** is for NIT Rkl, on and above funding of (+) 90,000 Euro by NAVAL GROUP to IRMRA and ISEN-JUNIA, Dec. 2022– June 2025, *Approved*.

2. **D.P. Jena (PI)**, D. Choudhuri (Co-PI), "Design and Development of an anechoic water-filled duct with active impedance termination", Naval Research Board, **100.4 Lakhs**, Jan. 2023– Jan. 2026, *Approved*.
3. **D.P. Jena (PI from NIT Rkl), C.S. Tiwary (PI from IIT Kgp)**, "Design, development, fabrication, and experimental characterization of 3D printed hydrophone array for underwater acoustic applications", Naval Research Board, Naval Research Board, **49.75 Lakhs**, Jan. 2023– Jan. 2026, *Approved*.
4. **D.P. Jena (PI)**, D. Choudhuri (Co-PI), (CARS-I) "Modeling simulation of 3D wake geometry and bubble distribution and estimation of back scattering strength due to wake of marine vessels at sea", Naval Science Technological Laboratory **(NSTL), Visakhapatnam**, Jan 2023 – Dec. 2023, **10 Lakhs**, *Approved*.
5. P.S. Balaji (PI), **D.P. Jena (Co-PI)**, and D. Choudhuri (Co-PI), "Design and Development of Vibration Isolators Using Negative Stiffness Mechanism", ISRO, **16.5 Lakhs**, Jan 2022– June 2023, *ongoing*.
6. **D.P. Jena (PI)**, (CARS-II) "Design and development of water filled impedance tube for measuring ER and TL of acoustic materials", Naval Physical & Oceanographic Laboratory **(NPOL)**, Cochin, Nov 2020 – Aug 2023, **49.53 Lakhs** *ongoing*.
7. **D.P. Jena (PI)**, (CARS-I) "Generation of transient acoustic pressure with specific characteristics", Naval Physical & Oceanographic Laboratory **(NPOL)**, Cochin, April 2019 – Sept 2020, **10 Lakhs** *Completed*.
8. **D.P. Jena (PI)**, "Design and fabrication of a metamaterial based acoustic cloak to skin a hollow aluminum cylinder from SONAR ranging 1–20 kHz in ideal water medium", Naval Rearch Board **(NRB)**, Oct 2016 – Oct 2019, **24.99 Lakhs** *Completed*.
9. **D.P. Jena (PI)**, "Design development and fabrication of acoustic signature based gunshot detection system for sniper using microphone array", Science and Engineering Research Board **(SERB)**, Oct 2016 – Oct 2019, **22 Lakhs** *Completed*.

INDUSTRIAL CONSULTANCY PROJECTS

1. **D.P. Jena (PI)**, "Consultant for Setting-up Audio Lab at **Logitech** R&D research center Chennai: Phase-II", Logitech Chennai (Industrial Consultancy & Research), **10.05 Lakhs**, Jan 2022– December 2022, *ongoing*.
2. **D.P. Jena (PI)**, "Consultant for Setting-up Audio Lab at **Logitech** R&D research center Chennai: Phase-I", Logitech Chennai (Industrial Consultancy & Research), **11.35 Lakhs**, Jan 2021– December 2021, *Completed*.
3. **D.P. Jena (PI)**, P.S. Balaji (Co-PI) " Design review, modelling and experimental analysis of VTOL UAV for defence applications", **Inditron India Electronics**, Bangalore, India as client (Industrial Consultancy & Research), **7.67 Lakhs**, June 2021– June 2022, *ongoing*.
4. **D.P. Jena (PI)**, "Consultant for fan noise reduction", **V-Guard** as client (Industrial Consultancy & Research), **17 Lakhs**, October 2021–May 2022, *Completed*.
5. **D.P. Jena (PI)**, "Consulting on acoustic materials design, measurement and measurement software development", **ECOTONE Systems** Delhi (Industrial Consultancy & Research), March 2021– Dec 2022, **26.845 Lakhs** *ongoing*.

6. **D.P. Jena (PI)**, "Vibration and acoustic measurement, analysis, prognosis, and recommendations", **MAPLE Consultants** Delhi (Industrial Consultancy & Research), June 2021– Dec 2022, **24.544 Lakhs** *ongoing*.
7. **D.P. Jena (PI)**, "Application software development in LabVIEW for vibration and acoustics measurement instrument", Ind. Con., **Alfa Acoustics**, Pune, Dec 2015 – Dec 2019, **5 Lakhs** *Completed*.

FACILITIES ESTABLISHED (NIT Rourkela)

1. **Artificial Materials Design (2022)** Funded by Projects
   Digital metamaterial laboratory aims to design and fabricate metamaterials for vibration and acoustic application. At present this lab support to ISRO project in hand. This Lab is collaborated with Professor Tiwary (IIT Kgp) for 3D printed sensor manufacturing and 3D printed acoustic material characterization. Additionally, it is collaborated with Prof. Ramkumar (IIT Kanpur), and Prof. Bibhuti Bhushan Mandal (IIT Kgp) for 3D printed acoustic materials design and characterization.
2. **Underwater Acoustics Laboratory (2020)** Funded by Projects
   Underwater Acoustics Lab has been established with project funding from CARS projects from NPOL. A portable water tank and test booth already have been constructed. The present project will enhance the underwater acoustics laboratory and will generate the key knowledge strength on underwater acoustics and measurement. At present, this lab received recommendation from CEFIPRA for an international project with France NAVAL Group, ISEN and IRMRA.
3. **Industrial Acoustics Laboratory (2016)** Funded by Projects
   Industrial Acoustics Laboratory has been setup in 2016 with project funding from NRB and SERB. This lab at present is equipped with indigenously developed acoustic impedance tube, transmission loss tube, portable anechoic chamber, air flow measurement setup and damping coefficient measurement instruments and test setup. Apart from that simulation environment with MATLAB, ANSYS and COMSOL etc. This lab is also associated with various industries and academics in national and international level to address the problems in air acoustics domain.

PATENTS

1. **D.P. Jena**, S. Pandey, S.V. Pereira (NPOL), P.S. Balaji, D. Choudhuri, S. Dalela, "Tailored Cosine Beam and Composite Cosine Beam having tunable Quasi Zero stiffness characteristics for vibration isolation". *Disclosed to NIT Rourkela on 4th April 2022, under processing.*
2. **S. Pandey, D.P. Jena**, and P.S. Balaji, "Tailored Composite Cosine Beam having tunable Quasi Zero stiffness characteristics for vibration isolation". *Disclosed to NIT Rourkela on 10th June 2022, under processing.*
3. **D.P. Jena**, and S. Pandey, "Apparatus and Method for absolute calibration of acoustic impedance tube". *Disclosed to NIT Rourkela on 10th June 2022, under processing.*

4. **D.P. Jena**, S.N. Panigrahi. "A processing condition monitoring system and/or method for motor operated utility products such as food processors and the like.". **Indian Patent No: Patent No.: 370356** (Date of Grant: 25/06/2021).

JOURNAL PUBLICATIONS

Citations	h-index	i10-index
512	12	15

1. **D.P. Jena**, Xiaojun Qiu, (2021) Insertion loss of regular finite cylinder arrays with porous layers between the rows, ***The Journal of Acoustic Society of America***, vol.149, pp. 2395-2402. **IF: 2.5**. https://doi.org/10.1121/10.0004131
2. **D.P. Jena**, Xiaojun Qiu, (2020) Sound transmission loss of porous materials in ducts with embedded periodic scatterers, ***The Journal of Acoustic Society of America***, vol.142, pp.978-983. **IF: 2.5**. https://doi.org/10.1121/10.0004131
3. **D.P. Jena**, J. Dandsena, V. G. Jayakumari, (2019) Demonstration of Effective Acoustic Properties of Different Configurations of Helmholtz Resonators, ***Applied Acoustics***, vol.155, pp.371-382. **IF: 3.6**. https://doi.org/10.1016/j.apacoust.2019.06.004.
4. **D.P. Jena**, S.N. Panigrahi (2016) Introducing passive acoustic filter in acoustic based condition monitoring: Motor bike piston-bore fault identification, ***Mechanical Systems and Signal Processing***, vol.70, pp.932-946. **IF: 8.9**. https://doi.org/10.1016/j.ymssp.2015.09.039.
5. **D.P. Jena**, S.N. Panigrahi (2015) Automatic gear and bearing fault localization using vibration and acoustic signals, ***Applied Acoustics***, vol.98, pp.20-33. **IF: 3.6**. https://doi.org/10.1016/j.apacoust.2015.04.016.

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6. Srajan Dalela, P. S. Balaji, **D.P. Jena** (2022) Design of a metastructure for vibration isolation with Quasi-Zero-Stiffness characteristics using bistable curved beam, ***Nonlinear Dynamics***, vol. 108, pp. 1931–1971. **IF: 5.74**. https://doi.org/10.1007/s11071-022-07301-0.
7. **D.P. Jena** (2022) Mathematical modelling and numerical simulation of direct extrusion process for different cross-section of dies, ***International Journal of Manufacturing Technology and Management***, *accepted & under production.*
8. Karisma Mohapatra, **D.P. Jena** (2021) Acoustic attenuation of hybrid sonic crystal made with periodic cylindrical scatterers and porous panels, ***Acoustics Australia***, vol. 49, pp. 441–449. **IF: 1.94**. https://doi.org/10.1007/s40857-021-00239-0.
9. J. Dandsena, K. Mohapatra, A.K. Satapathy, **D.P. Jena** (2021) Noise control of outdoor unit of split type air-conditioner using periodic scatterers made with array of Helmholtz resonators, ***Applied Acoustics***, vol.179, 108054. **IF: 3.6**. https://doi.org/10.1016/j.apacoust.2021.108054.
10. Karisma Mohapatra, **D.P. Jena** (2021) Insertion loss of periodic cylindrical shells with helical slit, ***Noise Control Engineering Journal***, vol.69(3), 199-208(10). **IF: 0.5**.

https://doi.org/10.3397/1/376920.

11. Srajan Dalela, P. S. Balaji, **D.P. Jena** (2021) A review on application of mechanical metamaterials for vibration control, ***Mechanics of Advanced Materials and Structures***, vol. 29 (22), 3237-3262. **IF: 3.19**. https://doi.org/10.1080/15376494.2021.1892244.
12. B. Kushwaha, K. Dwivedi, R.S. Ambekar, V. Pal, **D.P. Jena**, D.R. Mahapatra, C.S. Tiwary (2021) Mechanical and Acoustic Behavior of 3D-Printed Hierarchical Mathematical Fractal Menger Sponge, ***Advanced Engineering Materials***, 23: 2001471. **IF: 4.2**. https://doi.org/10.1002/adem.202001471.
13. Karisma Mohapatra, **D.P. Jena** (2021) Insertion loss of sonic crystal made with multi resonant shells, ***Applied Acoustics***, vol.171, pp.978-983, 107676. **IF: 3.6**. https://doi.org/10.1016/j.apacoust.2020.107676.
14. Pankaj Kumar, A.K.Gupta, R.K.Sahoo, **D.P. Jena** (2019) Numerical investigation of a 3D inertance pulse tube refrigerator from design prospective, ***Cryogenics***, vol.98, pp.125-138. **IF: 2.2**. https://doi.org/10.1016/j.cryogenics.2018.12.004.
15. R. Harikrishna, **D.P. Jena** (2019) Analytical and numerical modelling of open-Die forging process for elliptical cross-section of billet, ***Measurement***, vol.134, pp.855-865. **IF:5.2**. https://doi.org/10.1016/j.measurement.2018.12.023.
16. **D.P. Jena**, S.N. Panigrahi (2017) Numerically estimating acoustic transmission loss of a reactive muffler with and without mean flow, ***Measurement***, vol.109, pp.168-186. **IF: 5.2**. https://doi.org/10.1016/j.measurement.2017.05.065.
17. **D.P. Jena**, S.N. Panigrahi (2014) Motor bike piston-bore fault identification from engine noise signature analysis, ***Applied Acoustics***, vol.76, pp.35-47. **IF: 3.6**. https://doi.org/10.1016/j.apacoust.2013.07.023.
18. **D.P. Jena**, S.N. Panigrahi, R. Kumar (2013) Multiple-teeth defect localization in geared systems using filtered acoustic spectrogram, ***Applied Acoustics***, vol.74(6), pp.823-833. **IF: 3.6**. https://doi.org/10.1016/j.apacoust.2012.12.010.
19. **D.P. Jena**, S.N. Panigrahi (2015) Estimating acoustic transmission loss of perforated filters using finite element method, ***Measurement***, vol.73, pp.1-14. **IF: 5.2**. https://doi.org/10.1016/j.measurement.2015.05.008.
20. **D.P. Jena**, S.N. Panigrahi (2014) Precise measurement of defect width in tapered roller bearing using vibration signal, ***Measurement***, vol.55, pp.39-50. **IF: 5.2**. ttps://doi.org/10.1016/j.measurement.2014.04.023.
21. **D.P. Jena**, S. Sahoo, S.N. Panigrahi (2014) Gear fault diagnosis using active noise cancellation and adaptive wavelet transform, ***Measurement***, vol.47, pp.356-372. **IF: 5.2**. https://doi.org/10.1016/j.measurement.2013.09.006.
22. **D.P. Jena**, S.N. Panigrahi, R. Kumar (2013) Gear fault identification and localization using analytic wavelet transform of vibration signal, ***Measurement***, vol.46 (3), pp.1115-1124. **IF: 5.2**. https://doi.org/10.1016/j.measurement.2012.11.010.
23. **D.P. Jena**, S.N. Panigrahi (2013) Gear fault diagnosis using bispectrum analysis of active noise cancellation-based filtered sound and vibration signals, ***International Journal of Acoustics and Vibration***, vol.18, pp.58-70. **IF: 0.6**. https://doi.org/10.20855/ijav.2013.18.2320.
24. **D.P. Jena**, S.N. Panigrahi (2013) Experimental Investigation of Motor Current Signal Signature for Developing an Operator Assistance System for a Food Processor, ***Jour-***

nal of the Institution of Engineers (India): Series B, vol.94(4), pp.263-274. **IF: 0.2**. https://doi.org/10.1007/s40031-013-0064-x.

25. **D.P. Jena**, M. Singh, R. Kumar (2012) Radial ball bearing inner race defect width measurement using analytical wavelet transform of acoustic and vibration signal, ***Measurement Science Review***, vol.12 (4), pp.141-148. **IF: 1.4**. https://doi.org/10.2478/v10048-012-0021-x.
26. **D.P. Jena**, R. Kumar (2011) Implementation of Wavelet Denoising and Image Morphology on Welding Image for Estimating HAZ and Welding Defects, ***Measurement Science Review***, vol.11 (4), pp.108-111. **IF: 1.4**. https://doi.org/10.2478/v10048-011-0020-3.
27. M. Bains, **D.P. Jena**, R. Kumar (2010) Identification of Inner Race Defect in Bearing by Analyzing Vibration Signal Using Wavelet Transform, ***International Journal of Applied Engineering Research***, vol.5(17), pp.2913-2920. **IF: 0.2**. https://www.ripublication.com/ijaerv5/ijaerv5n17_5.pdf.
28. R. Kumar, **D.P. Jena**, H. Garanayak, V. Sahni (2010) Automatic Grain Counting in Metal Structure Using Image Morphology and Skeleton by Zone of Influence, ***International Journal of Applied Engineering Research***, vol.5(17), pp.2965-2973. **IF: 0.2**. https://www.ripublication.com/ijaerv5/ijaerv5n18_12.pdf.
29. R. Kumar, **D.P. Jena** (2009) Phase Determination in Low Carbon Steel Metallographic Image Using Wavelet Transform, ***Asian Journal of Chemistry***, vol.21(10), pp.125-129. **IF: 0.2**. http://asianjournalofchemistry21102009.weebly.com/uploads/2/9/7/1/2971446/027-s125-s129.pdf.
30. V. Biswal, S. Soni, **D.P. Jena**, R. Kumar (2008) Application of image processing in estimation of Area of heat affected zone, ***Journal of Metallurgy and Materials Science***, vol.50(4), pp.219-225. **IF: 0.2**. http://eprints.nmlindia.org/5103.

BOOK CHAPTERS

1. J. Dandsena, **D.P. Jena** (2022) Wave Propagation through Resonators, Resonators in Series and Multi-Resonator, Wave Dynamics Book, pp. 181-191, World Scientific. https://doi.org/10.1142/9789811245367_0008.
2. K. Mohapatra, **D.P. Jena** (2018) Benchmark Analysis of a Helmholtz Resonator for Estimating Acoustic Metamaterial Properties, pp. 505-513, International Conference on Physics and Mechanics of New Materials and Their Applications, Springer, Cham.

CONFERENCES

1. **D.P. Jena**, D.K. Jena, S. Kumar (2019) Simulation of Bullet Penetration using Finite Element Method, ICORT 2019.
2. K. Mohapatra, **D.P. Jena** (2018) Issues Involved in Numerical and Experimental Investigation of a Finite Sonic Crystal, 13th Western Pacific Conference on Acoustics (WESPAC-2018). *(Accepted)*
3. **D.P. Jena**, K. Mohapatra (2018) Development of a Portable Anechoic Chamber and Characterization using Reverberation Time, 13th Western Pacific Conference on Acoustics (WESPAC-2018). *(Accepted)*

4. J. Dandsena, **D.P. Jena** (2018) Retrieving Effective Metamaterial Properties of a Helmholtz Resonator, 13th Western Pacific Conference on Acoustics (WESPAC-2018). *(Accepted)*
5. K. Mohapatra, **D.P. Jena**, Optimization of Sonic Crystal using GA for Broadband Acoustic Transmission Loss, SOCPROS 2017, International Conference, IIT BBSR.
6. **D.P. Jena**, K. Mohapatra, Benchmark analysis of a Helmholtz resonator for estimating acoustic metamaterial properties, PARINOV-PHENMA 2017, International Conference, IITDM Jabalpur.
7. K. Mohapatra, **D.P. Jena**, Mechanics of Acoustic Wave Splitting and Guiding using Combination of Different Unit-Cells in a Sonic Crystal, PARINOV-PHENMA 2017, International Conference, IITDM Jabalpur.
8. **D.P. Jena**, S.N. Panigrahi (2012) Bearing and Gear Fault Diagnosis Using Adaptive Wavelet Transform of Vibration Signals. Procedia Engineering 50 265–274 (ICASCE 2012), International Conference.
9. Rajesh Kumar, **D.P. Jena** and Chandra Shakher, Application of wavelet transform and image morphology in processing vibration speckle interferogram for automatic analysis, SPIE Optical Metrology, ICM-International Conference Centre Munich, Germany 2011.
10. R. Kumar, **D.P. Jena** and M. Bains, "Identification of inner race defect in radial ball bearing using acoustic emission and wavelet analysis", ISMA2010 in Leuven Belgium, International Conference.
11. **D.P. Jena**, S.N. Panigrahi. Automatic Gear Teeth Defect Localization Using Acoustic and Vibration Signal in Time Domain. National Symposium on Acoustics (NSA – 2012) Date: 05- 07th Dec. 2012, National Conference.
12. R. Kumar, **D.P. Jena**, N. Kumar, and Rajesh Kumar, "Application Of Acoustics And Wavelet Transform In Determination Of Operating Frequency And Diagnosis Of Fault In Rotary Machine", National Symposium on Rotor Dynamics (NSRD-2003, December 15-17, 2003, IIT, Guwahati, India), National Conference.

THESIS SUPERVISION

B.Tech	M.Tech	PhD(PI)	PhD (Co-PI)
20	16	2	0

1. **PhD Student (Inst. Scholar): Karisma Mohapatra**, D.P. Jena (Guide), Prof. A.K. Satapathy (Co-Guide), Thesis Title: Simulation and Experimental Verification for Acoustic Attenuation of Intuitive Designs of Periodic Scatterers and Combination with Acoustic Panels. **Awarded**.
2. **PhD Student (Proj. Scholar): Janmenjaya Dandsena**, D.P. Jena (Guide), Prof. A.K. Satapathy (Co-Guide), Thesis Title: Acoustic Attenuation of Periodic Helmholtz Resonator and Their Use in Designing Periodic Scatterers for Outdoor Noise Control, ***Thesis Comments Received***.

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3. **PhD Student (Inst. Scholar): Nirlipta S.**, D.P. Jena (Guide), Research Area: Analytical and Numerical Study of Acoustic Scattering from Scatterers having Different Geometry, Joined: Jan 2020. Registration Seminar Completed.
4. **PhD Student (Inst. Scholar): Vinod Yadav**, D.P. Jena (Guide), Research Area: Design and Analysis of Single Element based Quasi-Zero Stiffness Material for Vibration Isolation System, Joined: Jan 2020. Registration Seminar Completed.
5. **Executive PhD Student: Shan V. Perira, NPOL Kochi**, D.P. Jena (Guide), Research Area: Underwater Acoustics, Joined: Jan 2021.
6. **PhD Student (Inst. Scholar): Sharat Pandey**, D.P. Jena (Guide), Research Area: Underwater noise control via active and passive filters, Joined: June 2022.

PERSONAL DETAILS

Passport No: Z4280044
Date of Birth: 23 April 1982
Father's Name: Rama Krushna Jena
Mother's Name: Aruna Pradhan
Martial Status: Married
Spouse's Name: Hasyamayee Garanayak
Kids: One Daughter (10 March 2012), One Son (20 December 2015)

REFERENCE

1. **Prof. Massimo Garai**, Professor, Chairman of UNI Committee on Acoustics and Vibration, Department of Industrial Engineering (DIN), University of Bologna, Viale Risorgimento 2, 40136 Bologna, ITALY (email: massimo.garai@unibo.it, Phone +39-051-2093298 (Dept. office). *Relationship: Supervisor of DIN Young Visiting Fellowship-2022* **(Post. PhD)**.
2. **Prof. Xiaojun Qiu**, Professor at Nanjing University, Past : Professor in Audio, Acoustics and Vibration, School of Mechanical and Mechatronic Engineering, University of Technology Sydney,15 Broadway, Ultimo NSW 2007 (email: xjqiu@nju.edu.cn, Mobile: +61–467207897). *Relationship: Supervisor of Honorary Research Fellowship* **(Post. PhD)**.
3. **Dr. D. D. Ebenezer**, Associate Editor JASA, Adjunct Professor, Cochin University, (Retired Scientist) 'H' and Director Systems, Naval Physical and Oceanographic Lab, Thrikkakara Kochi 682021, India–682021 (email: d.d.ebenezer@gmail.com, Mobile: +91–9446577239). *Relationship: Sponsored Research Projects Collaborator* **(Post. PhD.)**.
4. **Prof. S.N. Panigrahi**, Associate Professor and HOD, School of Mechanical Sciences, Indian Institute of Technology Bhubaneswar (Ph.D. Supervisor).
(email: psatyan@iitbbs.ac.in, Mobile: +91–9556273389). Relationship: **PhD Supervisor**.