

Romanbabu Oinam, Ph.D. Engineering

Assistant Professor
Department of Civil Engineering
Indian Institute of Technology (IIT) Guwahati
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EDUCATION

- **Ph.D.** (2017), Civil Engineering (Structural Engineering), Indian Institute of Technology (IIT) Delhi, New Delhi, India
Thesis: Metallic energy dissipation devices for seismic strengthening of reinforced concrete frames with soft-story
Supervisor: Prof. Dipti Ranjan Sahoo
- **M.Tech.** (2012), Civil Engineering (Earthquake Engineering), National Institute of Technology (NIT) Silchar, Assam, India
Thesis: Experimental study on beam-column joints with various fibre under cyclic loading,
Supervisor: Dr. Abdul Munim Choudhury and Prof. Aminul Islam Laskar
- **B.Tech.** (2010), Civil Engineering, Manipur Institute of Technology (MIT) Takyelpat, Imphal, Manipur, India

CURRENT RESEARCH ACTIVITIES

- Performance-based seismic design
- Seismic retrofitting & strengthening
- Passive structural control
- Steel and reinforced concrete structures
- Steel-concrete composite structures
- Fiber-reinforced Concrete
- Unreinforced masonry structure
- Hybrid testing and simulation

AWARDS AND RECOGNITIONS

- ***Young Author Best Paper Award***
Structural Engineering Convention (SEC), New Delhi, India (2014)

PROFESSIONAL EXPERIENCE

2021, December – Present
Indian Institute of Technology (IIT) Guwahati, Assam, India
Assistant Professor

2018, June – 2021, December

Indian Institute of Technology (IIT) Tirupati, Andhra Pradesh, India
Assistant Professor

2018, April – 2018, June

National Institute of Technology (NIT) Warangal, Telangana, India
Assistant Professor

2017, Oct – 2018, March

Indian Institute of Technology (IIT) Delhi, Hauz Khas, New Delhi, India
Senior Project Scientist

2017, July – 2017, Sept

Indian Institute of Technology (IIT) Delhi, Hauz Khas, New Delhi, India
Project Scientist

2017, Jan – 2017, June

The NorthCap University, Gurgaon, Haryana, India
Assistant Professor (Guest)

2012 June - 2012 December

Sharda University, Knowledge Park III, Greater Noida, India
Assistant Professor

SPONSORED RESEARCH PROJECTS

1. **Technology Innovation and Development Foundation (TIDF)**: “AI-based Real-time assessment of Infrastructure of National importance (AI-RAIN)” ₹. 50,00,000.0/- , 26/03/2025-28/09/2028, Principal Investigator.
2. **Industry Funded Research**: “Development of a Novel Local Rehabilitation Technique for Corroded Reinforced Concrete Structures” ₹. 11,00,000.0/- , 16/08/2023-16/08/2025, Principal Investigator.
3. **Technology Innovation and Development Foundation (TIDF)**: “Development and Parametric Study of a Novel Hybrid Yielding Damping Device” ₹. 10,00,000.0/- , 28/09/2022-28/09/2025, Principal Investigator.
4. **Start up Grant(SuG)**: “Development and Parametric Study of a Novel Hybrid Yielding Damping Device” ₹. 5,00,000.0/- , 06/05/2022-06/05/2024, Principal Investigator.
5. **New Faculty Initiative Grant (NFIG)**: “Seismic Strengthening of Open Ground Storey Building using RC Shear Wall” ₹. 5,00,000.0/- , 22/11/2019-21/11/2022, Principal Investigator.
6. **Scheme for Promotion of Academic and Research Collaboration (SPARC)**: “Smart Hybrid Fiber Reinforced Polymer Composite Strengthening System for Civil Infrastructure” ₹. 70,27,785.0/-, 15/03/2019-14/03/2021, Co-Principal Investigator.

MAJOR CONSULTANCY PROJECTS

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|---|-----------|
| • Vetting of structural design & drawings of multilevel car parking at site Ghitorni and Mayur Vihar, Delhi. | 2025-2026 |
| • Vetting of structural drawings for retrofitting of columns in an existing steel structure building of IWAI Dibrugarh, Assam. | 2025-2026 |
| • Vetting of structural design and drawings report for 120 meter span steel truss bridge at Pikte Point, Arunachal Pradesh. | 2025-2026 |
| • Vetting of structural design and drawings for the office-cum-training building and residential accommodation of the National Academy of Defence Financial Management (NADFM) Pune Project, Maharashtra. | 2025-2026 |
| • Vetting of structural drawings for proposed temporary shed for LGSF ACC building at AF station, Leh, J&K. | 2024-2025 |
| • Vetting of structural design and drawings of School Building at Wariana, Jalandhar, Punjab. | 2024-2025 |
| • Vetting of structural design and drawings of Mirku school at Pasighat East Siang, Arunachal Pradesh. | 2024-2025 |
| • Vetting of structural design and drawings for site TNR Project, DRDO. | 2024-2025 |
| • Vetting of architectural and structural drawings for the Socio-Cultural Center at Karduk Folk Music Academy at Rayang, Arunachal Pradesh. | 2024-2025 |
| • Vetting of structural analysis, design, and drawings of upgradation of Bakin Pertin General Hospital to 300 bedded Hospital at Pasighat, East Siang District, Arunachal Pradesh. | 2024-2025 |
| • Vetting of structural design and drawings for temporary shed for living accommodation, office accommodation, toilet and bath block at AF Station Leh, J&K. | 2024-2025 |
| • Vetting of structural design and drawings of RCC (B+G+7) commercial building of M/S, Guwahati, Assam. | 2024-2025 |
| • Vetting of structural design & drawings of technical facility at Site-Romeo & Pre-cast boundary wall at Dharma, DRDO. | 2024-2025 |
| • Vetting of structural design and drawings of residential apartment building (2B+S+11) at GA Plot No. 15, Saheed Nagar, Bhubaneswar, Odisha. | 2024-2025 |
| • Vetting of structural analysis and design of substructure components for a 90-feet modular double-lane bridge (Load Class 70R) at Y Junction, Nelya, Arunachal Pradesh. | 2024-2025 |
| • Vetting of structural design and drawings for Quebec and Site Golf Project, DRDO. | 2024-2025 |
| • Proof checking of structural design for technical facilities at site Alpha, Bravo & Hotel project, DRDO. | 2024-2025 |
| • Vetting of structural design and drawing of 1.9 MLD ISPS, Subhash Nagar & Ajmer, Rajasthan. | 2024-2025 |
| • Vetting of design & simulation of STP tanks at Jodhpur & Ajmer, Rajasthan. | 2024-2025 |

RESUME

• Vetting of structural design and drawing of HSTP JLN Ajmer, Rajasthan.	2024-2025
• Vetting of structural design and drawings of MES infrastructure at Rasapunja, West Bengal.	2024-2025
• Vetting of structural design and drawings of CRC Chatarpur, Madhya Pradesh.	2024-2025
• Vetting of structural design and construction drawings of 4 th BN ITB Police infrastructure at Dirang, Arunachal Pradesh.	2024-2025
• Vetting of structural design and drawings of 7MLD STP at Ajmer, Rajasthan.	2024-2025
• Vetting of structural design and drawings of Blast resistant door for opening size 5.0m×5.0m, DRDO.	2024-2025
• Vetting of structural design and drawings of Hardened Aircraft Shelter (HAS) and Allied Works at AF Stn Hasimara, West Bengal.	2024-2025
• Vetting of structural design and drawings of Blast resistant door for opening size 3.0m×3.0m, DRDO.	2024-2025
• Mix design of M-40 grade concrete at Umiam Stage One Dam Shillong, Meghalaya.	2024-2025
• Vetting of structural design and drawings of structural support for ducting, sprinkler, cable tray, mezzanine platforms, VOC foundation and UG tank at Hyderabad, Telangana.	2024-2025
• Vetting of structural design & drawings of integration testing of surveillance & tracking at K-site, Kolar, DRDO.	2024-2025
• Proof checking on analysis and design of Roma Entertainment City, Vishokhar, Amara Khaira Chak, Varanasi, Uttar Pradesh.	2024-2025
• Vetting of the structural design and drawings of Rajdeep Infra Bijnor Road at Lucknow, Uttar Pradesh.	2024-2025
• Vetting of structural drawing of Utkal hospital, Bhubaneswar, Odisha.	2024-2025
• Vetting of structural drawings of Seng Khasi indigenous cultural centre building at Shillong, Meghalaya.	2024-2025
• Vetting of structural audit report of Sunworld Arista at sector 168, Noida, Uttar Pradesh.	2024-2025
• Vetting of PEB structure at Kharagpur workshop (Phase-II), South Eastern Railway	2023-2024
• Vetting of Sierra and Lima structural design and drawings, DRDO.	2023-2024
• Vetting of structural drawings of district hospital Thoubal, Manipur	2023-2024
• Vetting of structural audit report of Meadows Vista phase-2 project at Sikrod, Raj Nagar Extension, Ghaziabad, Uttar Pradesh.	2023-2024
• Vetting of structural design and drawing of PEB Substructure at Bondamunda, Odisha.	2023-2024
• Vetting of structural design & drawings of MOC building, DRDO.	2023-2024
• Structural audit of overhead tank and OTM buildings at the military station, Sri Ganganagar, Rajasthan.	2023-2024
• Vetting of structural design and drawing of a pre-engineered building (boys	2023-2024

RESUME

- hostel) located at Panchkula, Haryana.
- Safety audit of BSNL telephone exchange building Aizawl, Mizoram. 2023-2024
 - Safety audit and retrofitting of the bridge over the spillway of the Uiam concrete dam at Shillong, Meghalaya. 2023-2024
 - Vetting of structural design and drawings of Saheed nagar residential apartment building, Khorda, Odisha. 2022-2023
 - Technical vetting of NDT test reports and Strengthening methodology of Baghajatin ROB (Old and New), Kolkata. 2022-2023
 - Vetting of structural load test findings at IIT Bhubaneshwar. 2022-2023
 - Vetting of structural design and drawings of DRDO building infrastructure for site 'Delta, Charlie and Echo. 2021-2022
 - Vetting of structural design and drawings of Advanced Centre for Energetic Materials (ACEM) DRDO process building at Nashik, Maharashtra. 2021-2022
 - Vetting of structural design and drawings of Indian oil refinery station house at Numaligarh, Assam. 2020-2021
 - Vetting of structural design and drawings of Tirupati smart city parking building at Tirupati, Andhra Pradesh. 2020-2021
 - Wind load certification and Vetting of structural design and drawing of Pre Engineered Buildings for M/S. Tidal Trading Pvt.Ltd. at Paradip, Odisha. 2020-2021
 - Proof checking of the proposed stool base and the method of statement for lowering the bridge girder span at Garuda Varathi Smart corridor project, Tirupati, Andhra Pradesh. 2020-2021
 - Approval of proposed retrofitting strategy in bridge pier at Garuda Varathi Smart corridor project, Tirupati, Andhra Pradesh. 2020-2021
 - Vetting of structural design and drawings of five training facilities at site 'BM' for DRDO, RDA Civil Engineering Systems Pvt. Ltd. 2020-2021
 - Site investigation to ascertain the appropriateness of the adopted structural arrangements in the M/s Berger Paints India Ltd Factory, Hindupur, Andhra Pradesh. 2020-2021
 - Vetting of structural design and drawings of PEB building for Indian oil building at Palwal 2020-2021
 - Visual inspection for assessment of the condition of the Shozukhu-Zukihe Bridge at Dimapur, Nagaland. 2019-2020
 - Independent vetting of structural design for construction of Jakhalu International Prayer Center at Surumi, Nagaland. 2019-2020
 - Visual inspection for assessment of the condition of the Employees' State Insurance Corporation hospital and branch office at Rajahmundry, Andhra Pradesh. 2019-2020
 - Vetting of structural design and drawings of Delhi High Court Complex, Block-S at Dr. Zakir Hussein Marg, New Delhi 2016-2017
 - Vetting of structural design and drawings of NIT Delhi Administrative Building 2016-2017

(6 Story Building + 1 Basement)

- Vetting of structural design and drawings of Twin-tower married accommodation at Delhi Cantonment (12 Story + 1 Basement)

2017-2018

TEACHING EXPERIENCE

Undergraduate Courses

- Engineering Mechanics
- Strength of Materials
- Structural analysis
- Basic surveying
- Design of steel structure
- Design of concrete structure
- Civil engineering materials & Construction
- Steel structure lab.
- Concrete lab

Postgraduate Courses

- Seismic Evaluation & Retrofitting of Structures
- Earthquake and Wind engineering
- Advanced Mechanics of Solids
- Advanced Structural Engineering Lab.

STUDENTS SUPERVISION

- Ph. D. Thesis (Ongoing-6)
- M.S. Research Thesis (Completed-1)
- M. Tech. Theses (Completed-7; Ongoing-2)
- B.Tech Final Year Project (Completed-12; Ongoing-3)
- B.Tech Term Project (Completed-4; Ongoing-2)
- Summer Internship (Completed-33, Ongoing-2)

LABORATORY DEVELOPMENT

- Development of passive damping device testing facility, IIT Guwahati.
- Setting up a permanent seismological observatory center in IIT Tirupati campus in collaboration with National Center for Seismology, Ministry of Earth Sciences, Government of India
- Procured family of displacement control CTMs, 5000 kN cube test frame, 500 kN & 15 kN mortar test frame and 350 kN bending test frame
- Procured elastic modulus determination extensometer
- Procured CMOD displacement transducer for measurement of crack opening
- Procured computational software's SAP2000, ETBAS, SAFE 2016, PERFORM-3D
- Development of lateral load resisting system at IIT Delhi
- Development of pseudo-dynamic test (PsD) facility at IIT Delhi

ADMINISTRATIVE

Department Level

- 2022 (Feb.)-Till date: Chairman & Convenor for Department Audio/Video/Electrical Infrastructure Facility Committee
- Faculty advisor for the B. Tech, IIT Guwahati

✓ 2022-Batch

- 2021 (April)- 2021 (Dec.): Departmental meeting coordinator, IIT Tirupati
- 2021 (Feb)- 2021 (Dec.): Lab in charge - Building Materials (Concrete), IIT Tirupati
- 2020 (July)- 2021 (Dec.): Coordinator for the development of the Dual degree curriculum, IIT Tirupati
- Faculty advisor for the M. Tech Structure, IIT Tirupati

✓ 2020-Batch

✓ 2019-Batch

- 2019 (July)- 2021 (Dec.): Program coordinator for M.Tech

Institute Level

- 2024 (Oct.)-Till date: Vice Chairperson (Services) of Hostel Affairs Board (HAB), IIT Guwahati
- 2024 (Feb.)-2025 (Jan.): Warden of Umiam Hostel, IIT Guwahati
- 2023 (May)- Till date: Programme Officer (PO) of National Service Scheme (NSS), IIT Guwahati
- 2023 (April)-2024 (May): Associate warden of Umiam Hostel, IIT Guwahati
- 2021 (May)- 2021 (Dec.): Campus Sustainability & Waste Management Committees, IIT Tirupati

OUTREACH ACTIVITIES

- 2019- Organized one day workshop on *Computational Mechanics*
- 2019- Organized two days workshop on *Non-linear Modelling Techniques*

INVITED LECTURES

- 2024: Invited Speaker at Five-days Workshop On “Limit State Design of Steel Structures (LSDSS-2024)” *NIT Jamshedpur, Jharkhand, India.*
- 2024: Key Note Speaker at One-day Workshop on “The Preferred Material for Construction in Seismic-prone Areas” *held at Department of Civil Engineering, IIT Guwahati, Assam, India.*
- 2023: Invited Speaker at FDP on “Recent Trends in Retrofitting & Rehabilitation of Structures” *NIT Warangal, Telangana, India.*
- 2023: Invited Department Speaker at “Research and Industrial Conclave Integration 2023” *IIT Guwahati, Assam, India.*
- 2022: Invited Speaker at two-days Training Session to Practice Engineers on “Disaster Risk Mitigation of PWD Infrastructure” *Public Works (Roads) Department (PWD), Assam, India.*
- 2022: Invited Speaker at one-week AICTE Sponsored FDP on “Advancements in the field of Civil Engineering: Theory and Practice” *Pravara Rural Engineering College, Loni, Maharashtra, India.*
- 2022: Invited Speaker at one-week AICTE Sponsored Induction/Refresher Program on “Repair, Rehabilitation and Retrofitting of RCC Structures” *Annasaheb Dange College of Engineering and Technology (ADCET), Ashta, Maharashtra, India.*
- 2021: Invited Speaker at one-week AICTE Sponsored ATAL Faculty Development Program on “Earthquake Resistant Design and Construction Practices” *Rajiv Gandhi Proudhyogiki Vishwavidyalaya (RGPV), Bhopal, Madhya Pradesh, India.*

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- 2021: Invited Speaker at one-day consulting engineers meet organized by Association of Consulting Civil Engineers (India) “Evolution of Design and Role of Construction Materials & Practice” Annamacharya Institute of Technology & Sciences, *Tirupati, Andhra Pradesh, India.*
- 2021: Invited Speaker at one-week AICTE Sponsered Short Term Training Programme (STTP) on “Repair, Rehabilitation and Retrofitting Techniques of Reinforced Concrete Structures” *Srinivasa Ramanujan Institute of Technology (SRIT), Ananthapuramu, Andhra Pradesh, India.*
- 2021: Invited Speaker at one-day consulting engineers meet organized by UltraTech Cement Limited “Cement: Supplementary cementitious materials and It’s performance” *Hotel Bliss, Tirupati, Andhra Pradesh, India.*
- 2021: Invited Speaker at one-week TEQIP-III Sponsered Workshop on “Recent Advances in Infrastructure Technology (RAIT-2021)” *National Institute of Technology Sikkim, Ravangla, Sikkim, India.*
- 2020: Invited Speaker at one-week AICTE Sponsered Short Term Training Programme (STTP) on “Advance Construction Technics in Low-Cost Civil Structures for Modern Living” *KKR & Ksrinstitute of Technology & Sciences, Guntur, Andhra Pradesh, India.*
- 2020: Invited Speaker at one-week TEQIP-III Sponsered FDP Programme on “Recent Advances and Innovations in Design of Structures-2020” *Govind Ballabh Pant Institute of Engineering & Technology (GBPIET), Pauri Garhwal, Uttarakhand, India.*
- 2020: Invited Speaker at one-week AICTE Sponsered Short Term Training Programme (STTP) on “Seismic Analysis of Multi-Storey Buildings as per IS Codes” *Srinivasa Ramanujan Institute of Technology (SRIT), Ananthapuramu, Andhra Pradesh, India.*
- 2020: Special lecture at 4 Days “Refreshers Training Course for Andhra Pradesh Housing Engineers” *Government of Andhra Pradesh, India.*
- 2020: Invited Speaker at three-day webinar series on “Seismic Hazards and Mitigation” *ITM University, Gwalior, Madhya Pradesh, India.*
- 2020: Invited Speaker at five-day FDP on “Novel Research Developments in Civil Engineering (NRDCE)” *KKR & Ksrinstitute of Technology & Sciences, Guntur, Andhra Pradesh, India.*
- 2020: Invited Speaker at three-day national-level online FDP on “Rehabilitation and Retrofitting of Structures (R²S)” *Sree Vidyanikethan Engineering College (SVEC), Tirupati, Andhra Pradesh, India.*
- 2019: Invited Speaker at the GAIN course “Design of Anchorages in Concrete Construction and their Role in Structural Strengthening” *IIT Hyderabad, Kandi, Telangana, India.*
- 2018: Invited Speaker at the GAIN course “Seismic Performance Assessment of Structures through Numerical and Hybrid Simulations” *IIT Hyderabad, Kandi, Telangana, India.*
- 2017: Invited Speaker at the Frontier for Civil Engineering Research and Industry *Sharda University, Knowledge Park III, Greater Noida, India.*
- 2017: Invited Speaker at One-day workshop on Massive Open Online Courses *MVN University, Palwal, Haryana, India.*

- 2014: Keynote Speaker at the 9th Structural Engineering Convention
Department of Civil Engineering, IIT Delhi (2014), Delhi, India.

CONTINUING EDUCATION PROGRAMS

Short Courses/Workshops

- Program co-coordinator: Two-day Workshop on “Use of High Strength Rebar in Construction Practice” *held at Department of Civil Engineering, IIT Guwahati during 7-8 June 2024, funded by TATA Steel.*
- Program co-coordinator: One-day Workshop on “The Preferred Material for Construction in Seismic-prone Areas” *held at Department of Civil Engineering, IIT Guwahati on 20th January 2024, funded by INSDAG Kolkata.*
- Program co-ordinator: An International Workshop on Emerging Trends in Dynamics and Earthquake Engineering *held at Department of Civil Engineering, IIT Delhi during 20-21 December 2014.*

Conference

- Conference organizer: Socio-Technological Aspects of Seismic Disaster and Mitigation (STASDM) 2022, *IIT Guwahati, Assam, India*
- Program co-ordinator: Structural Engineering Convention (SEC) 2014, *IIT Delhi, Hauz Khas, New Delhi, India*

Training

- Technical expert: A 4 Days “Refreshers Training Course for Andhra Pradesh Housing Engineers” *held at Department of Civil & Environmental Engineering, IIT Tirupati during 8-11 October 2020, funded by Government of Andhra Pradesh, India.*

PROFESSIONAL SERVICES

Peer Journal Editor

- Indian Concrete Journal, **ICJ** : Guest Editor for July 2023 Edition
- Indian Concrete Journal, **ICJ** : Guest Editor for December 2022 Edition
- Indian Concrete Journal, **ICJ** : Guest Editor for October 2021 Edition

Peer Journal Reviewer (11 Nos.)

- Journal of Bridge Engineering, **ASCE**
- ACI Structural and Materials Journals, **American Concrete Institute**
- Engineering Structures, **Elsevier**
- Construction and Building Materials, **Elsevier ScienceDirect**
- Journal of Building Engineering, **Elsevier**
- Case Studies in Construction Materials, **Elsevier**
- Acta Geophysica, **Springer Nature**
- Sadhana, **Springer Nature**
- Steel and Composite Structures: An International Journal, **Techno-Press**
- Advances in Concrete Construction: An International Journal, **Techno-Press**

- Shock and Vibration, *Hindawi*
- Indian Concrete Journal, *ACC*
- Journal of Structural Engineering, *Madras*

Memberships of Professional Societies

- Associate Member of the **Institution of Engineers India** (2016-)
- Member of the **National Information Centre of Earthquake Engineering** (2017-)
- Lifetime Member of the **Indian Society of Earthquake Technology** (2018)
- Member of the **American Society of Civil Engineers** (2016-)
- Member of the **Earthquake Engineering Research Institute** (2016-)
- Member of the **American Concrete Institute** (2016-)

National Advisory Committee

- International Conference on Condition Assessment, Rehabilitation & Retrofitting of Structures (CARRS 2020), *IIT Hyderabad, Kandi, Telangana, India*
- 2nd International Virtual Conference on Sustainable Construction Technologies & Advancements in Civil Engineering (ScTACE 2021), *Shri Vishnu Engineering College for Women, Bhimavaram, Andhra Pradesh, India*

PUBLICATION

Patent

- P1. Combined Metallic Yielding Device, **Status:** *Filed*

Journal Publications

- J1. Sharma S., Oinam, R. M., Kumar, P. C. A., and Sahoo, D. R. (2025), "Cyclic performance evaluation and retrofitting of coupling double-beam constructed with reinforced and fiber-reinforced concrete: An experimental and numerical study." *Journal of Structural Design and Construction Practice (ASCE)*. (***In Press***)
- J2. Abhilash, M., Yadav, D., Bhartiya, R., Oinam, R. M., and Sahoo, D. R., (2025), "Seismic retrofitting of existing non-ductile open-ground story RC frame by partial infilling with RC shear walls: An experimental study." *Engineering Structures*, 335, 120397.
- J3. Lolla, S., Oinam, R.M., Furtado, A., and Varum H., (2025), "Tensile strength and flexural behavior of steel fiber reinforced concrete beams." *Structural Concrete*, 26, 501–530.
- J4. Bhartiya, R., Oinam, R. M., and Sahoo, D. R., (2023), "Cyclic axial stress-strain model for circular CFST columns under compression loading." *Soil Dynamics and Earthquake Engineering*, 164, 107588.
- J5. Bhartiya, R., Oinam, R. M., Sahoo, D. R., and Kumar U., (2021), "Modified confinement model for monotonic axial behavior of concrete-filled steel tubular columns." *Journal of Constructional Steel Research*, 180, 106570.
- J6. Karaiya, B. K., Oinam, R. M., Sahoo, D. R., and Gupta, A., (2020), "Lateral cyclic performance of a CFRP retrofitted two-story RC frame with open ground story." *Bulletin of Earthquake Engineering*, 18(13), 5919–5939.
- J7. Karki, P., Oinam, R. M., and Sahoo, D. R. (2020), "Evaluation of seismic strengthening techniques for non-ductile soft-story RC frame." *Advances in Concrete Construction (ACC)*, 9(4), 423-435.

- J8. Oinam, R. M., Kumar, P. C. A., and Sahoo, D. R. (2019), "Cyclic performance of steel fiber-reinforced concrete exterior beam-column joints." *Earthquakes and Structures*, 16(5), 533-546.
- J9. Oinam, R. M., and Sahoo, D. R. (2019), "Using metallic dampers to improve seismic performance of soft-story RC frames: Experimental and numerical study." *Journal of Performance of Constructed Facilities (ASCE)*, 33(1), 04018108-18.
- J10. Oinam, R. M., and Sahoo, D. R. (2018), "Numerical evaluation of seismic response of soft-story RC frames retrofitted with passive devices." *Bulletin of Earthquake Engineering*, 16(2), 983-1006.
- J11. Oinam, R. M., and Sahoo, D. R. (2017), "Seismic rehabilitation of damaged reinforced concrete frames using combined metallic yielding passive devices." *Structure and Infrastructure Engineering*, 13(6), 816-830.
- J12. Oinam, R. M., Sahoo, D. R., and Sindhu, R. (2014), "Cyclic response of non-ductile RC frame with steel fibers at beam-column joints and plastic hinge regions." *Journal of Earthquake Engineering*, 18(6), 908-928.
- J13. Oinam, R. M., Sugumar, R., and Sahoo, D. R. (2017), "A comparative study of seismic performance of RC frames with masonry infills", *Procedia Engineering*, 173, 1784-1791.
- J14. Oinam, R. M., and Sahoo, D. R. (2015), "Enhancement of lateral capacity of damaged non-ductile RC frame using combined-yielding metallic damper." *The Indian Concrete Journal*, 89(1), 80-86.
- J15. Oinam, R. M., and Sahoo, D. R. (2015), "Retrofitting of damaged RC frame using metallic yielding damper." *The Bridge and Structural Engineer, Indian National Group of International Association of Bridge and Structural Engineering (ING-IABSE)*, 45(1), 85-93.

Book Chapter

- B1. Deo, B.D.N., Oinam, R.M., and Kumar, S., (2025) "Effectiveness and challenges of local retrofitting methods used in low- and medium-rise non-ductile RC-OGS frames" *Current Progress in Engineering Sciences*, Volume: I, Springer.
- B2. Deo, B.D.N., and Oinam, R.M., (2025) "A study on the hysteretic behaviour of combined metallic yielding dampers under cyclic load using finite element software" *Recent Developments in Structural Engineering*, Volume: III, pp 145-160, Springer.
- B3. Lolla, S., and Oinam, R.M., (2022), "Evaluation and prediction of tensile strength of steel fiber concrete" *Proceedings of the 17th Symposium on Earthquake Engineering (17SEE)*, Volume: II, pp 409-423, Springer.
- B4. Oinam, R. M., Kumar, P. C. A., Sahoo, D. R., and Maran, K., (2018), "Cyclic behavior of reinforced concrete coupling beams" *Recent Advances in Structural Engineering*, Volume: I, pp 1063-1072, Springer.
- B5. Oinam, R. M., and Sahoo, D. R., (2018), "Numerical evaluation of cyclic performance of damaged RC frames using passive devices" *Recent Advances in Structural Engineering*, Volume: II, pp 687-697, Springer.
- B6. Oinam, R. M., and Sahoo, D. R. (2015), "Enhancement of lateral capacity of damaged non-ductile RC frame using combined-yielding metallic damper" *Advances in Structural Engineering: Materials*, Volume: III, pp 2157-2167, Springer.

Conference Proceedings

- C1. Kumar, S., Deo, B.D.N., and Oinam, R.M., (2025) "Effect of residual stress in yielding damping device" *Proceedings of 19th World Conference on Seismic Isolation, Energy Dissipation and Active Vibration Control of Structures*, Berkeley, CA, United States.

- C2. Deo, B.D.N., and Oinam, R.M., (2025) "Mathematical modeling of hysteretic damping devices using the Maxwell approach" *Proceedings of 19th World Conference on Seismic Isolation, Energy Dissipation and Active Vibration Control of Structures*, Berkeley, CA, United States.
- C3. Prakash S., Panda B., Narayanan R.G., and Oinam R.M., (2024) "Properties of 3D-printed geopolymer mortar using industrial wastes" *Proceedings of 18th NCB International Conference & Exhibition on Cement, Concrete and Building Materials*, New Delhi, India.
- C4. Abhilash, M., Oinam, R.M., and Balakrishna, B. (2024), "Effectiveness of seismic strengthening techniques in mitigation of soft-storey effects in RC buildings with open ground storey" *Proceedings of 14th Structural Engineering Convention (SEC)*, Trichy, India.
- C5. Deo, B.D.N., and Oinam, R.M., (2024) "Post-installed anchor system for yielding damper integration in non-ductile reinforced concrete" *Proceedings of 14th Structural Engineering Convention (SEC)*, Trichy, India.
- C6. Deo, B.D.N., Oinam, R.M., and Kumar, S., (2024) "Effectiveness and challenges of local retrofitting methods used in low- and medium-rise non-ductile RC-OGS frames" *Proceedings of Research and Industrial Conclave (RIC)*, Guwahati, India.
- C7. Deo, B.D.N., Kumar, S., and Oinam, R.M., (2024) "Mitigation of residual drift of non-ductile RC frame with yielding damper" *Proceedings of 18th World Conference on Earthquake Engineering (WCEE)*, Milan, Italy.
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