

Curriculum Vitae



Name : Dr. Sujit Kumar Pradhan
Assistant Professor

Present Address : Department of Civil Engineering
IGIT Sarang
(An Autonomous Institute of Govt. of Odisha)
Dhenkanal-759146, Odisha, India
E-mail: sujitpradhan@igitsarang.ac.in
sujit.iiest@gmail.com

Research Interests:

Sustainable materials
Recycling
Stabilization
Pavement characterization and evaluation
Waste minimization
Bitumen characterization
Porous concrete

Educational Qualification

Degree	Institute/University	Year	Specialization
PhD	IIT Bhubaneswar	2021	Transportation Engineering
M. Tech	IEST Shibpur, Calcutta, India	2009	Highway & Traffic Engineering
B. Tech	IGIT Sarang, Odisha, India	2005	Civil Engineering

PhD student Supervisor:

1. Mr Tapas Kumar Baral (Continuing)
2. Mr Akash Prava Panda (Continuing)

List of publications

Journals:

- [1] Pradhan, S.K., and Sahoo, U.C. (2021). Evaluation of recycled asphalt mixtures rejuvenated with Madhuca Longifolia (Mahua) oil. *International Journal of Pavement Research and Technology* Springer, 14(1), pp.43-53.

- [2] Pradhan, S.K., and Sahoo, U.C. (2020). Effectiveness of pongamia pinnata oil as rejuvenator for higher utilization of reclaimed asphalt (RAP) material. *Innovative Infrastructure Solutions*, Springer, 5 (2), 92.
- [3] Pradhan, S.K., and Sahoo, U.C. (2020). Influence of softer binder and rejuvenator on bituminous mixtures containing reclaimed asphalt pavement (RAP) material. *International Journal of Transportation Science and Technology*, Elsevier. Vol. 11(1), pp 46-59.
- [4] Pradhan, S.K., and Sahoo, U.C. (2020). Use of Mahua oil for rejuvenation of the aged binder through laboratory investigations. *International Journal of Transportation Science and Technology*, Elsevier. Vol. 11(1), pp. 32-45.
- [5] Pradhan, S.K., and Sahoo, U.C. (2019). Performance of aged binder rejuvenated with Polanga oil. *Journal of Traffic and Transportation Engineering*, Elsevier, 6(6), pp. 608-620.

Book Chapters:

- [1] Pradhan, S.K., and Sahoo, U.C. (2020). Impacts of recycling agent on superpave mixture containing RAP. *5th International symposium on asphalt pavement & environment*, Lecture notes in Civil Engineering, Springer Nature, Switzerland, vol. 48, pp. 246-255.
- [2] Pradhan, S.K., Rath, A., Pothal, G.K. (2021). Evaluation of Cloth Bag and Gunny Bag as Potential Reinforcing Materials for Pond Ash. Springer, International Conference on Construction Materials and Environment, 2021 (ICCME 2021), Vol 196, pp385-393.
- [3] Pradhan, S.K., Behera, N., and Palai, A. (2022). Performance Study of Pervious Concrete as a Road Pavement Infrastructure System. Springer, International Conference on Road and Airfield Pavement Technology 2021 (ICPT 2021), Sri Lanka, Vol. 193, pp.517-528.

- [4] Pradhan, S.K., and Sahoo, U.C. (2022). Effect of softer binder on hot asphalt mixture containing RAP. *International Conference on Recent Developments in Sustainable Infrastructure: Research and Practices (ICRDSI 2020)*, Lecture Notes in Civil Engineering, Springer, LNCE, volume 207, pp 61-71.

Conference Proceeding:

- [1] Pradhan, S.K., and Behera, N. (2022). Performance assessment of pervious concrete road on strength and permeability by using silica fume. *Materials Today proceedings*, Elsevier, Volume 60, Part 1, pp 559-569.
- [2] Pradhan, S.K., and Biswal, G. (2022). Utilization of reclaimed asphalt pavement (RAP) as granular sub-base material in road construction. *Materials Today proceedings*, Elsevier, Volume 60, Part 1, pp 288-293.
- [3] Pradhan, S.K., and Sahoo, U.C. (2020). Use of locally available oil type rejuvenators for asphalt recycling. *13th International Conference on Transportation planning and implementation methodologies for developing countries*, 10-11 December, IIT Bombay.
- [4] Pradhan, S.K., and Sahoo, U.C. (2019). Effectiveness of polanga oil as rejuvenator for asphalt with high RAP content. *International airfield and highway pavement conference*, American Society of Civil Engineering, pp 114-126.
- [5] Pradhan S. K. and Sahoo U. C. (2019) "Use of Oil Type Rejuvenators for Asphalt Recycling" *International Conference on Recent Developments in Sustainable Infrastructure-Materials and Management (ICRDSI-2019)* Springer, 11-13 July 2019.
- [6] Pradhan, S.K., and Sahoo, U.C. (2018). Rheological characterization of aged binder rejuvenated with polanga oil. *International conference on Pavements and computational approaches*, Central Road Research Institute, New Delhi.

Workshop/Short term course/Faculty Development Programme organized:

- [1] Pavement characterization and traffic analysis, Feb 21-25, 2022, IGIT Sarang
- [2] Automation and robotics in construction (ARC-2021), March 15-19, 2021, IGIT Sarang
- [3] Challenges & opportunities in civil engineering infrastructure (COCEI-2021), Feb 9-13, 2021, IGIT Sarang
- [4] Sustainable Pavement: Current Research & Practices (SPCRP-2020), Sept 11-15, 2020, IGIT sarang
- [5] Research & Practices in Civil Engineering (RPCE-2020), Aug 3-7, 2020, IGIT Sarang
- [6] Seminar on “Road construction scenario in India and Indian oil bitumen grades”, Jan 24, 2020, IGIT Sarang
- [7] Use of alternative and low cost sustainable construction materials and techniques in civil engineering infrastructure projects (UACMTCE-2020), Jan 6-10, 2020, IGIT Sarang

Reviewer of the Journals:

- [1] Journal of Transportation Engineering: Part B, Pavements, ASCE
- [2] Journal of Material Cycles and Waste Management – Springer
- [3] Transportation Infrastructure Geotechnology – Springer
- [4] Advances in Materials Science and Engineering, Hindawi
- [5] 3rd International Conference on Structural Engineering and Construction Management (SECON 22), Springer Chapter
- [6] IEEE Sensor Journal

Conference paper presented:

- [1] Sustainable materials and practices for build environment (SMPBE-2021) [Paper-II]
Manipal University Jaipur Nov 25-26, 2021
- [2] Sustainable materials and practices for build environment (SMPBE-2021) [Paper-I]
Manipal University Jaipur Nov 25-26, 2021

- [3] International conference on Road and Airfield Pavement Technology (ICPT-2021)
University of Moratuwa, Sri Lanka July 14-15, 2021
- [4] International conference on construction materials and environment (ICCME-2021)
JUIT, HP, India, June 3-4, 2021
- [5] International conference on recent developments in sustainable infrastructure: research & Practices (ICRDSI-2020), KIIT BBSR, Dec 18-21, 2020
- [6] Transport planning and implementation methodologies for developing countries, IIT Bombay, Dec 10-11, 2020
- [7] International conference on Pavements and computational approaches (ICOPAC-2018),
Central Road Research Institute, New Delhi Nov 16-17, 2018

Workshop/Short term course/Faculty development programme attended:

- [1] Advances in Highway Technology and Traffic systems, Ramaiha Institute of Technology
Feb 7-11, 2022
- [2] Aspects of sustainable construction practices, GCE Nagpur, Jan 3-7, 2022
- [3] Innovation in civil engineering materials & techniques for sustainable development (ICEMTSD-2021), NIT Silchar, Nov 18-22, 2021
- [4] Recent Advances in pavement analysis, design and evaluation, IIT Jodhpur, Sept 20-24, 2021
- [5] Modern trends in civil Engineering & construction industry, College of Engg, Kidangoor, Sept 02-06, 2021
- [6] Traffic flow modelling (TFM-2021), IIT Bhubaneswar, July 26-30, 2021
- [7] Advances in pavement engineering, IIT Bhubaneswar, May 24-28, 2021
- [8] Automation and robotics in construction (ARC-2021), IGIT Sarang, March 15-19, 2021
- [9] Sustainable materials & resilient buildings - philosophy, design, implementation, and performance, KITS Warangal, Feb 15-20, 2021

- [10] Challenges & opportunities in civil engineering infrastructure (COCEI-2021), IGIT Sarang, Feb 9-13, 2021
- [11] Application of non-conventional pavement materials and NDT in road infrastructure - current practice & future trends, IEST Shibpur, Feb 01-05, 2021
- [12] Sustainable technologies for low-cost drinking water production, Dr APJ AKTU, Lucknow, Jan 18-22, 2021
- [13] Strategies to enhance research visibility, impact & citations, GCE Keonjhar, Dec 14-19, 2020
- [14] Biomass valorization and its life cycle assessment (LCA), IIT Delhi, Dec 01-05, 2020
- [15] Transport phenomena in industrial processes, IGIT Sarang, Nov 9-13, 2020
- [16] Advancements in civil engineering (with emphasis on water resources, environmental engineering and climate change), IIT Indore, Nov 02-07, 2020
- [17] Sustainable Pavement: Current Research & Practices (SPCRP-2020), IGIT Sarang, Sept 11-15, 2020
- [18] Employability skills for engineering graduates, RTU Kota, Sept 07-11, 2020
- [19] Advances in materials processing and characterization, IGIT Sarang, Aug28-Sept 1, 2020
- [20] Emerging trends in geotechnical sustainability (ETGS-2020), GCE Kalahandi, Aug 21, 2020
- [21] Research & Practices in Civil Engineering (RPCE-2020), IGIT Sarang, Aug 3-7, 2020
- [22] Recent advances in geotechnical engineering research & practice, IIT Patna, July 01-10, 2020
- [23] Recent Advances in Civil Engineering, VJTI, Mumbai June 2-7, 2020
- [24] Use of alternative and low cost sustainable construction materials and techniques in civil engineering infrastructure projects (UACMTCE-2020), IGIT Sarang, Jan 6-10,

2020

[25] Durability bituminous pavements-Theory and Practice, IIT Guwahati, March 9-13,

2019

[26] Design and Performance of Pavements (DaPoP), IIT Bhubaneswar, June 19-23, 2017

[27] Roadway pavements construction & quality, IIT Kharagpur, Sept 24-26, 2016

[28] Fundamentals of Geosynthetic Engineering, IIT Bhubaneswar, July 11-21, 2016

[29] Soil Structure Interaction, IIT Bhubaneswar, Dec 28-Jan 6, 2016

[30] Pavement Design, Evaluation and material Characterization (PAVE), IIT Kharagpur,

December 21-23, 2015

[31] Innovative Technologies in Transportation engineering (ITTE 2015), IIT Guwahati

February 23-27, 2015

Subject Taught:

[1] Advance Numerical method

[2] Advanced Railway Engineering

[3] Transportation Infrastructure Design

[4] Optimization Methods & its Application in Civil Engineering

[5] Highway & Traffic Engineering

[6] Advance Surveying

[7] Estimating and cost evaluation

[8] Waste Water Engineering

[9] Transportation Engineering (Laboratory)

[10] Transportation Engineering Design Practice (Practical)

Extra Responsibilities:

[1] NBA Coordinator (Department of Civil Engineering)

[2] NAAC Coordinator (Department of Civil Engineering)

[3]Prof-in-charge (Transportation Engineering Laboratory)

[4]Coordinator (M Tech-Transportation Engineering)

[5]Member, Estate Maintenance Committee

[6]Coordinator (Construction Industry Development Council)

[7]Coordinator (BPUT Faculty Development Programme)

[8]Member (PMGSY Scrutiny Committee)