RESUME

Dr. Vidhi Vyas
Scientist
Pavement Evaluation Division
Central Road Research Institute (CSIR-CRRI)
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EDUCATIONAL QUALIFICATIONS

Degree	Institute	Year
Ph.D. (Pavement Engineering)	Birla Institute of Technology and Science, Pilani	2020
M.E. (Transportation Engineering)	Birla Institute of Technology and Science, Pilani	2015
B.E. (Civil Engineering)	Institute of Engineering and Technology, Devi Ahilya University, Indore	2013

RESEARCH INTERESTS

- Pavement management systems
- Pavement condition assessment
- Non-destructive evaluation of pavements and bridge decks
- Applications of computational intelligence in pavements
- Fuzzy Multi-Criteria Analysis for applications of civil engineering
- Soft-computing techniques in civil engineering

RESEARCH AND TEACHING EXPERIENCE

Position	Institute	Nature of work	Year
Scientist	Central Road Research Institute (CSIR-CRRI) New Delhi	Research, consultancy and teaching	Dec. 2020 - till date
Assistant Professor	Pandit Deendayal Energy University (formerly Pandit Deendayal Petroleum University) Gandhinagar	Teaching and research	Jan. 2019 – Dec. 2019
Co-instructor	Birla Institute of Technology and Science, Pilani	Teaching and research	Aug. 2015- Dec. 2018
Teaching Assistant	Birla Institute of Technology and Science, Pilani	Teaching and research	Aug. 2013- May 2015

INTERNSHIP

Institute	Study/work area	Year
IIT Delhi	Pedestrian movement study at the bus stop	2014
Sukriti Consultants	Surveying, estimation and costing, construction site investigation	2012

PUBLICATIONS

International Journals:

- Vyas, V., Patil, V. J., Singh, A. P., & Srivastava, A. (2019). Application of infrared thermography for debonding detection in asphalt pavements. Journal of Civil Structural Health Monitoring, 9(3), 325-337. (SCIE, Scopus, IF:1.817)
- Vyas, V., Singh, A. P., & Srivastava, A. (2019). Entropy-based fuzzy SWOT decision-making for condition assessment of airfield pavements. International Journal of Pavement Engineering, 1-12. (SCIE, Scopus, IF:2.646)
- Vyas, V., Singh, A. P., & Srivastava, A. (2020). Prediction of asphalt pavement condition using FWD deflection basin parameters and artificial neural networks. Road Materials and Pavement Design. (SCIE, Scopus, IF:2.582).
- Vyas, V., Patil, V. J., Singh, A. P., & Srivastava, A. (2020). Debonding detection in asphalt pavements using infrared thermography. Transportation Research Procedia, 48, 3850-3859. (Scopus)
- Vyas, V., Singh, A. P., & Srivastava, A. (2020). Quantification of airfield pavement condition using soft-computing technique. World Journal of Engineering, 17(6), 877-890. (Scopus)

Book chapters:

- Vyas, V., Singh, A.P., Srivastava, A. (2019). A Decision Making Framework for Condition Evaluation of Airfield Pavements Using Non-Destructive Testing. In: Al-Qadi, I. L., Ozer, H., Loizos, A. and Murrell, S. (Eds.) Airfield and Highway Pavements 2019: Innovation and Sustainability in Highway and Airfield Pavement Technology, pp. 343 - 353. ASCE, Chicago, Illinois. (Scopus)
- Vyas, V., & Goel, A. (2018). Method to Prioritize Hazardousness of Locations for Black Spot Identification Using Analytic Hierarchy Process. In: Urbanization Challenges in Emerging Economies: Energy and Water Infrastructure; Transportation Infrastructure; and Planning and Financing (pp. 714-724). Reston, VA: American Society of Civil Engineers. (Scopus)
- Vyas, V., Goel, A., Singh, A. P., & Anshuman (2018). Strength evaluation of unbound layer of flexible pavement using LWD testing. In: Singh, S. B., Bhunia, D., Muthukumar, G. (Eds.) Advances in Concrete, Structural, and Geotechnical Engineering (ACSGE 2018), Bloomsbury Publishing, New Delhi, ISBN: 9789387471696

International and National Conferences:

- Gowda MK, S., & Vyas, V., Road asset management system for low-volume roads: A case study of India, International Airfield & Highway Pavements Conference (ASCE), 8-10 June 2021 (Virtual event).
- Nair, P., & Vyas, V., Development of Asphalt Pavement Temperature Prediction Regression Models, Second ASCE Conference in India on Challenges of Resilient and Sustainable Infrastructure Development in Emerging Economies, 2-4 March, 2020, Kolkata.
- Vyas, V., Singh, A. P., & Srivastava, A., Condition assessment of reinforced concrete bridge deck using infrared thermography, 5th Conference of Transportation Research Group of India (CTRG-2019), 18-21 December, 2019, Bhopal.
- Vyas, V., Singh, A. P., & Anshuman, Non-destructive condition evaluation of airfield pavements: A case study, ASCE-T&DI International Airfield & Highway Pavements Conference (Pavements 2019), Chicago, IL, 21-24 July 2019.
- Vyas, V., Patil, V., Singh, A. P., & Anshuman, Debonding detection in asphalt pavements using infrared thermography, World Conference on Transport Research - WCTR 2019 Mumbai, 26-31 May 2019.
- Vyas, V., Goel, A., Singh, A. P., & Anshuman (2018). Strength evaluation of unbound layer of flexible pavement using LWD testing. 2nd ACSGE-2018, BITS Pilani, Pilani, India, 26 – 28 February 2018.
- Vyas, V., Singh, A. P., & Anshuman (2018). Evaluation of performance of asphalt pavement using analytical and finite

element methods: A comparative study. International Conference on Recent Advances in Transport Infrastructure-2018 (RAT- MANIT 2018), MANIT Bhopal, India, 13 – 14 February 2018.

- Vyas, V., Goel, A., Method to prioritize hazardousness of locations for black spot identification using analytic hierarchy process. ASCE India Conference, IIT Delhi, India, 12 – 14 December 2017.
- Vyas, V., Goel, A., & Yadav, N., Comparison of in-situ pavement layer modulus estimates from NDT methods and DCP testing. International Conference on Transportation Planning and Implementation Methodologies for Developing Countries-2016 (TPMDC 2016), IIT Bombay, India, 19 – 21 December 2016.
- Vyas, V., & Mandloi, D., Electronic apshisht: vartmaan paridrishya mein, Proceedings: Vishwa ki Pragati mein Vigyan tatha Prodyogiki ka Yogdan, DRDO, December 5-7, 2013.
- Vyas, V., & Mandloi, D., Solid waste management of Indore city: A scientific appraisal, Proceedings: Emerging Trends in Research and Analysis for Sustainable Development, March 27-28, 2012.

POSITIONS OF RESPONSIBILITY

- Coordinator: Board of Studies, Department of Civil Engineering, SOT, PDEU (formerly PDPU)
- Coordinator: National Board of Accreditation for B.Tech. in Civil Engineering, SOT, PDEU (formerly PDPU)
- Faculty-in-charge: Transportation Engineering Lab, Department of Civil Engineering, SOT, PDEU (formerly PDPU)

SOFTWARE SKILLS

Finite element analysis software: ABAQUS, PLAXIS 2D, Everstress FE

Others: Expert Choice, MATLAB, ELMOD, ArcGIS, AutoCAD, IITPave, KENPAVE, SPSS, Expert Choice

CONFERENCES/WORKSHOPS CONDUCTED

- Organizing committee member of International Conference on Advances in Concrete, Structural & Geotechnical Engineering (ACSGE - 2018), organized by BITS, Pilani during 13 – 14 February 2018.
- Organizing committee member of Workshop on PMGSY at BITS Pilani.
- Organizing committee member of Workshop on MXROAD at BITS Pilani.

ACADEMIC PROJECTS

- Road Safety Audit of Reengar-Sikar section of NH-11, NHAI, Government of India.
- Gap acceptance modeling and critical gap estimation of an urban unsignalised T-intersection.
- Improving road safety of BITS Pilani campus using Traffic Calming Measures.
- Selection of Waste Materials for Surface Course Pavement Construction using Multi-Criteria Analysis in Engineering.
- Study of geometric design features at Birla Shishu Vihar curve in BITS Pilani campus.
- Traffic data analysis of Delhi-Gurgaon Expressway.
- Analysis of present status of solid waste management of Indore city.
- Case study of Narmada river valley development profile.