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GM UNIVERSITY

P. B. Road, Davanagere – 577 006 KARNATAKA | INDIA



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https://www.researchgate.net/profile/Pavan-Kundur?ev=hdr_xprf

Dr. Pavan K J

Associate Professor

Faculty

Faculty of Engineering and Technology

School / Program

School of Engineering

B.Tech. in Biotechnology

Faculty Introduction (Five to Six Lines)

Dr. Pavan K. J is an Associate Professor of Biotechnology at GM University, Davanagere, with over 14 years of academic and research experience. He holds a Ph.D. in Biotechnology and specializes in molecular breeding, biofortification, and plant root architecture. His research focuses on microbiome studies, biofertilizers, and sustainable agricultural innovations. He has authored several research papers, books, and patents and executed funded projects under K-Tech NAIN and AICTE-VAANI. Proficient in bioinformatics and molecular techniques.

Qualifications

Ph.D. (Molecular Breeding / Plant Biotechnology)

VTU, Belagavi, 2019

M. Sc. (Biotechnology)

Bangalore University – Bangalore, Karnataka, 2011

B.Sc (CZMb)

Kuvempu University, Davanagere, 2008

Experience

Teaching

- **5 Years**, GM Institute of Technology, Davanagere
- **3.3 Years**, KLE's P. C Jabin Science College, Hubballi



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- **6 Years**, Department of Advanced Plant Biotechnology, GKVK, Bengaluru

Research

- Biofortification
Drought resistance in rice/maize
Plant Root Architecture
Molecular Breeding
Microbiome and Biofertilizers

Training Program Attended

- NPTEL Online Certification in "Nanotechnology in Agriculture" organized by IIT Kanpur in 2019.
- ISO 9001:2015 Internal Auditor Course conducted by TUV India in 2020.
- FDP on "e-Administration" sponsored by UGC, organized by P. C. Jabin Science College, Hubballi, on 18th October 2019.
- FDP on "Give your stress wings and let it fly away" sponsored by UGC, organized by P. C. Jabin Science College, Hubballi, on 14th October 2019.
- Workshop on "An Insight into Management Information System for Accreditation" sponsored by UGC, organized by P. C. Jabin Science College, Hubballi, on 12th February 2019.
- Workshop on "Professional Ethics and Values for Quality Enhancement" sponsored by UGC, organized by P. C. Jabin Science College, Hubballi, on 3rd October 2018.
- Workshop on "Research Methodologies and LaTeX" organized by VTU e-Learning Centre, Mysore, from 18th to 20th February 2016.
- Workshop on "Scientific Writing" organized by UAS, GKVK, Bengaluru, from 25th to 27th March 2013.

Research Interest

- Biofortification



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- Drought resistance in rice/maize
- Plant Root Architecture
- Molecular Breeding
- Microbiome and Biofertilizers
- Waste Segregation

Awards & Achievements

- Delivered Talk on "Bioinformatics and Research Methodology" at KLEs Nijalingappa Science College, Bengaluru on 19-06-2023.
- Delivered Talk on "Fundamentals of Bioinformatics" at KLEs P C Jabin Science College, Hubballi on 11-08-2023.
- Delivered Talk on "Bio-mimicry in Engineering & Next-Gen in Bioengineering" at University BDT College of Engineering (UBDTCE), Davangere on 19-05-2025.
- Delivered Talk on "Recent Trends in Bio-engineering" at University BDT College of Engineering (UBDTCE), Davangere on 15-05-2025.
- Delivered Talk on "Introduction to Bioinformatics" at GMS Academy, Davangere on 28-05-2025.

Publication / Patents

- **Patents:**
- IBAM-Mineral Water Quality Testing System (IoT-Based) – Indian Patent (Application No.: 202041051636 A)
- Enhanced Storage Method of Gravitational Energy – Indian Patent (Application No.: 202141000258A)
- Odor Neutralizing Spray using Agaricus bisporus – Indian Patent
- Sustainable Water Filter Paper with Pithophora Algae and Activated Carbon – Indian Patent



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- Isolation and Characterization of Plant Growth-Promoting Bacteria from Jeevamrutha – Indian Patent
- Musa paradisiaca Pseudo Stem Extract as a Bio-Control Agent – Indian Patent
- EcoPack: Innovative Packaging Solutions from Arecanut Leaf Sheaths (ALS) – Indian Patent
- Molecular characterization of plant growth promoting bacteria isolated from the Rhizosphere of areca catechu L plantation – Indian Patent
- Biological control of whitefly in solanaceae plant species using isaria fumosorosea – Indian Patent
- Design and Development of small-scale composting plant for household wet waste management – Indian Patent.
- **Books/Book Chapters:**
- Methodologies for Root Drought Studies in Rice – International (2012)
- Breeding for Drought Resistance Using Whole Plant Architecture – International (2013)
- Laboratory Manual for Microbiology – ISBN: 978-81-931-871-5-6 (2017)
- Laboratory Manual for Biotechnology – ISBN: 978-81-931-871-5-9 (2017)
- **Research Papers**
- Pavan K J. "Characterization and Treatment of Effluent from Gherkin Processing Industry using Activated Carbon".2025
- Manasa C. R., Suresh Babu, Madhuri Hegde, Divyashree and Pavan K. J. (2020). Ayurveda intrusion: a elucidation for Covid-19 pandemic. Impact of COVID-19 on Higher Education, Trans-Disciplinary Research and Employability*, 36-41. ISBN 978-93-5407-311-3.

- Pavan J Kundur, Ashwathanarayana R, Keerthi C.M, Brijesh A. S, Harish, B. G. and Shashidhar H.E. (2015). Genotypic variation for root growth orientation in rice (*Oryza sativa*. L) Under aerobic and well-watered condition. *International Journal of Current Research*, Vol. 7, Issue, 05, pp.16331-16336.
- Pavan J Kundur, Prakash G. Patil, B.G Harish, C.K, H. E Shashidhar. (2015). Molecular characterization of rice (*Oryza sativa* L.) genotypes using target region amplification polymorphism (TRAP) markers in relation to grain iron content. Vol 7(1), p. 125-133.
- Patil P.G, Byre Gowda M, Vimarsha H. S, Kundur P.J, and Shashidhar H. E. (2015). Genetic variability on leaf morpho-anatomical traits in relation to sterility mosaic disease (SMD) resistance in pigeon pea. *Australian Journal of Crop Science*, Vol 9(7), 621-628.
- Prakash G. Patil, M. Byre Gowda, Pavan J. Kundur, H. S. Vimarsha and H. E. Shashidhar. (2015). Upgraded Horizontal Polyacrylamide Gel Units for DNA Marker Genotyping. *Indian Journal of Science and Technology*, Vol 8(9), 822–827.
- Pavan J Kundur, Vimarsha H S, Ram sanjay, Krishnamurthy K.V, Harish B.G and Shashidhar H. E. (Date N/A). Study of Rice (*Oryza sativa* L.) Root Anatomy under Aerobic and Waterlogged Conditions. *International Journal of Applied And Pure Science and Agriculture*.
- Rakhi Soman, Naveenkumar Gande, Pavan J Kundur, Rajeswari Ambati, Ashwathanarayana R, Berhanu Dagnaw Bekele, Shashidhar H.E. (2014). Identification and Validation of Putative Candidate Gene Markers For Grain Iron Content in Recombinant Inbred Lines of Rice (*Oryza sativa*.L). *International*

Journal of Agriculture Innovations and Research, 3(3),
ISSN (Online) 923-930.

- Naveen Kumar Gande, Pavan J Kundur, Rakhi Soman, Rajeswari Ambati, Ashwathanarayana R, Berhanu Dagnaw Bekele, Shashidhar H. Eshwarappa* (2014). Identification of putative candidate gene markers for grain zinc content using recombinant inbred lines (RIL) population of IRRI38 X Jeerigesanna. *African Journal of Biotechnology*, 13(5), 657-663.
- Naveen Kumar Gande, Rakhi Soman, Pavan J Kundur, Rajeswari Amabti, Berhanu Dagnaw Bekele and Shashidhar H E* (2013). Evaluation of Recombinant Inbred Lines of Rice (*Oryza sativa* L.) For Grain Zinc Content, Yield Related Traits and Identification of Transgressant Lines Grown Under Aerobic Conditions. *Asian Journal of Experimental Biological Sciences*, 4(4), 67-74.
- Berhanu Dagnaw Bekele*, S.Rakhi, G.K.Naveen, P.J.Kundur and H.E.Shashidhar (2013). Estimation of genetic variability and correlation studies for grain zinc concentrations and yield related traits in selected rice (*Oryza sativa* L.) genotypes. *Asian Journal of Experimental Biological Sciences*, 4(3), 345-351.

- Oral Presentations

- Title: Exploring Natures Pharmacy-Potential of Medicinal and Ayurvedic plants and their conservation.
Event: Organized by KSTA, Karnataka State Medicinal Plant Authority, Govt of Karnataka. Date: January 07-09, 2025.



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- Title: Virtual International Conference on "Recent Advances in Chemical and Biological Sciences". Year: 2020
- Title: UGC-STRIDE International e-Conference on AI for Sustainable Agriculture. Year: 2020
- Title: National Webinar on "Ayurveda for Covid-19". Year: 2020 Poster Presentations.
- Title: Potential of Brivibacillus Strain as Plant Growth Promoting Bacteria in Rice (*Oryza sativa* L.) Crop.
- Event: GSBTM sponsored National Level Virtual Symposium on "Recent Trends in Modern Biology". Organizer: Department of Biological Sciences, P. D. Patel Institute of Applied Sciences, CHARUSAT. Date: December 10-12, 2020.

Title: Climate change. Organizer: Department of Microbiology and Biotechnology, Bangalore in association with Karnataka Rajya Vignana Parishath. Date: March 12, 2010.

-Title: Screening and characterization of rice genotypes for micronutrient. Event: International conference. Location: Hyderabad. Date: March 21-23, 2011

Awards & Recognitions

- Best Oral Presenter in International Conference

Administrative Responsibilities

- Department Level
NAIN, AICTE 100 points, College Publicity, IIC, GM Techno Centre, Mentor
- University Level
HOD, BSc. Food Science and Technology



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Workshops / FDPs / Seminars Attended

- Faculty Development Programme on "e-Administration"

Sponsor: UGC.Organizer: P. C Jabin Science College, Hubballi

Date: October 18, 2019

- Faculty Development Programme on "Give your stress wings and let it fly away".Sponsor: UGC Organizer: P. C Jabin Science College, Hubballi. Date: October 14, 2019

- Workshop on "An Insight into Management Information System for Accreditation". Sponsor: UGC. Organizer: P. C Jabin Science College, Hubballi
Date: February 12, 2019

- Workshop on "Professional Ethics and Values for Quality Enhancement". Sponsor: UGC. Organizer: P. C Jabin Science College, Hubballi. Date: October 3, 2018

- Workshop on "Research Methodologies and Latex"
Organizer: VTU e-learning Centre, Mysore. Date: February 18-20, 2016

- Workshop on "Scientific Writing" Venue: UAS, GKVK, Bangalore. Date: March 25-27, 2013

- 3rd International Plant Phenotyping Symposium (IPPN)
Location: Chennai, Date: February 17-19, 2014

- National Symposium on Biotechnological and Biorational Approaches for Pest Management in Agriculture and 33rd Annual Conference of Ethological Society of India. Venue: UAS, Dharwad, Karnataka
Date: November 6-7, 2009

Workshops / FDPs / Seminars Organized

- Faculty Development Programme (FDP) on “Advances in Robotics and Automation” Date: 12th – 16th February 2025 Organised by: Department of Robotics & Automation, GM University



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Projects Guided

- UG Projects -18
- PG Projects -02

Funded Projects / Grants Received

- K-Tech NAIN Funded Project on "Methanogen catalytic enzyme for higher biogas production and portable biogas plant.2024-2025". Grant Amount: ₹2,49,500
- GMU Funded Seed Money. Grant Amount: ₹20,000
- AICTE-VAANI Workshop Fund 2025. Grant Amount: ₹2,00,000
- GMU Funded Project on Areca Leaf Based Water Bottle Grant Amount: ₹15,000

Any Other Contributions

-IISC, Bengaluru, High Voltage Lab, Dr. Rajanikanth BS: Collaborated for Plasma for Enhancing Crop Yield in Agriculture.

-KLE'S Basic Science Research Centre: Sent students for Internship.

Sequence Submissions (NCBI GeneBank)

1. Acinetobacter sp. strain GM1 – Accession No.: PQ857688.1
2. Brevibacillus sp. Strain JBT19B – Accession No.: MN088720