

Faculty Profile



Faculty Role : Associate Professor (Mathematics)

Faculty E-mail : kvd.maths@coeptech.ac.in

Faculty Address : Dept of Mathematics, COEP Tech, Pune

Faculty Phone : 020-25507126

Faculty Interest : Administration, Teaching

Personal profile :

1. Qualification : Ph.D. (Savitribai Phule Pune University, Pune), 2009
M.Sc. (Maths) (Savitribai Phule Pune University, Pune), 1990
2. Experience : Teaching 33 Years
3. Research Interest / Area : Graph Theory & Matroid Theory
4. Publications :

Book :

Written a Laboratory Manual of Engineering Mathematics-I in the year 2001 for MS-BTE, Maharashtra State Board of Technical Education, Mumbai for the first year Diploma students in Maharashtra

Journal Papers :

- (i) Kiran Dalvi, Y.M. Borse & M.M. Shikare, *Forbidden Minor Characterization for the Class of Graphic Element Splitting Matroids*, Discuss. Math. Graph Theory 29 (2009) 629-644.
- (ii) Kiran Dalvi, Y.M. Borse & M.M. Shikare, *Forbidden-Minors for graphic and cographic es-splitting matroids*, Lobachevskii J. Math. , Vol. 31, No. 1(2010), 27-35.
- (iii) Kiran Dalvi, Y. M. Borse & M. M. Shikare, *Forbidden Minor Characterization for the Class of Co-graphic Element Splitting Matroids*, Discuss. Math. Graph Theory 31 (2011) 601-606.

- (iv) M.M. Shikare, K.V. Dalvi & S.B. Dhotre, *Splitting Off Operation for Binary Matroids and its Applications*, Graphs and Combin. 27 (2011) 871-882.
- (v) M.M. Shikare, S.B. Dhotre, & Kiran Dalvi, A Characterization of the graphic split-off matroids, Australasian J. of Combinatorics, 50 (2011) 25 – 35.
- (vi) Naiyer Pirouz, Kiran Dalvi and M.M. Shikare, *On the Excluded Minors for Regular Matroids which Yield Cographic Splitting Matroid*, Lobachevskii J. Math. , Vol. 32, No. 4 (2011) 376-384.
- (vii) Y.M. Borse, Kiran Dalvi & M.M. Shikare, *Excluded Minors for the Class of Co-graphic Splitting Matroids*, Ars Combin., 115 (2014), 219-237.
- (viii) Naiyer Pirouz, Kiran Dalvi & M.M. Shikare, *Cographic Element Splitting Matroids of regular Matroids*, Utilitas Mathematica, 101 (2016), 91-106.
- (ix) Ganesh Mundhe, Y.M. Borse, and K.V. Dalvi, *On Graphic Elementary Lifts of Graphic Matroids*, Discrete Math. 345 (2022).

5. Recent Teaching :

A.Y. 2023-24

Semester I : Ordinary Differential Equations and Multivariate Calculus (Second Year B.Tech.)

Semester II : Differential Equations and Complex Algebra (First Year B.Tech.)

A.Y. 2022-23 :

Semester I : Ordinary Differential Equations and Multivariate Calculus (Second Year B.Tech.)

Semester II : Vector Calculus and Partial Differential Equations (Second Year B.Tech.)

A.Y. 2021-22 :

Semester I : Deputed to newly started Government College of Engineering, Ratnagiri (Administrative work)

Semester II : Fundamentals of Mathematics (First Year M.Tech. Robotics & AI), Computational Methods in Engineering (First Year

M.Tech. Automotive (Mech), Geotech (Civil), Process Instrumentation (Instrumentation), Univariate Calculus (First Year B.Tech. Tutorials))

6. Current Advises : NA

7. Awards & Recognition :

- (i) Awarded a prize for **first rank** in order of merit at ‘New Arts, Commerce & Science College’, Ahmednagar at M.Sc.(Maths) in 1990.
- (ii) Awarded ‘**Gold Medal**’ on 9th Feb. 2011 from University of Pune for the best Ph.D. thesis in Mathematics for the year 2009-10.

8. Funded Project :

PI: Dr. Y.M. Borse, Dept of Mathematics, University of Pune, Pune.

Co-PI: Dr. K.V. Dalvi

Project title: Extension of Graph-Operations to Matroids in Respect of connectivity.

Amount and Duration: Rs. 11,15,760, Three years (March 2013 to March 2016).

Sanction Board: DST-SERB (Science and Engineering Research Board), New Delhi.

Office order: **No. SR/S4/MS: 750/12 Dated 20 th May 2013**