

David Raj Micheal

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Curriculum Vitae

Assistant Professor

Vellore Institute of Technology, Chennai

To gain an employment in an institution that offers me to learn new logic and techniques to implement the same for the institution's growth. I can work in any environment to furnish my knowledge.

Education

- 2016–2020 **Phd in Mathematics**, *Manipal Academy of Higher Education*, Manipal, India.
- 2014–2015 **M.Phil in Mathematics**, *Bharathidasan University*, Trichy, Tamil Nadu.
Percentage of Marks: 81%
- 2012–2014 **M.Sc in Mathematics**, *Bharathidasan University*, Trichy, Tamil Nadu.
Percentage of Marks: 71.27%
- 2009–2012 **B.Sc in Mathematics**, *St. Joseph's (autonomous) College*, Trichy, Tamil Nadu.
Percentage of Marks: 82.50%
- 2006–2008 **Higher Secondary (Mathematics & Biology)**, *M.S.P. Solai Nadar Memorial Hr. Sec. School*, Dindigul, Tamil Nadu.
Percentage of Marks: 87.25%
- 2004–2006 **SSLC**, *Johnpaul Hr. Sec. School*, Dindigul, Tamil Nadu.
Percentage of Marks: 91%

Awards

- 2015 **UGC NET-JRF**.
Secured 112/314 in the subject Mathematical Sciences under UGC Fellowship Scheme held on 21.06.2015

Research Interests

Linear Algebra, Generalized inverses, Functional Analysis, Iterative Methods, Probability, Data Science

Certificate Courses

- 2020 **Git a Web Developer Job: Mastering the Modern Workflow**, by *Brad Schiff on Udemy*.
Certificate earned at March 02, 2020.
- 2018 **Mathematics for Machine Learning: Linear Algebra**, by *Imperial College London on Coursera*.
Certificate earned at Tuesday, July 10, 2018 11:53 AM GMT.
- 2018 **R Programming**, by *Johns Hopkins University on Coursera*.
Certificate earned at Friday, June 1, 2018 6:03 AM GMT.
- 2018 **Advanced R Programming**, by *Johns Hopkins University on Coursera*.
Certificate earned at Thursday, May 31, 2018 12:26 PM GMT.

Collaborators

- K. Manjunatha Prasad, MAHE, Manipal
- S.K. Jain, Ohio University, USA
- Ravindra B Bapat, Indian Statistical Institute, Delhi Centre
- Vinay Madhusudhanan, MIT, MAHE, Manipal

Phd Thesis

Title *Outer inverses: Characterization and Computations*

Supervisor Dr. K. Manjunatha Prasad,
Professor, Department of Statistics, MAHE, Manipal, Karnataka

Email : km.prasad@manipal.edu; kmprasad63@gmail.com

Phone : +91 99801 00886

M.Phil Thesis

Title *A Study on Comparision of Various Definitions of Contractive Type Mappings*

Supervisor Dr. M. Marudai
Professor, Department of Mathematics, Bharathidasan University, Tamil Nadu

Email : mmarudai@yahoo.co.in

Phone : +91 94865 84463

M.Sc Thesis

Title *Existence of Lebesgue Measure on \mathbb{R}^k via Riesz Representation Theorem*

Supervisor Dr. P.S. Srinivasan,
Associate Professor, Department of Mathematics, Bharathidasan University, Tamil Nadu

Email : ps_srini@yahoo.com; pssrinimaths@gmail.com

Phone : +91 93803 93939

Work Experience

- June 2021– Now **Assistant Professor.**
Division of Mathematics, School of Advanced Sciences
Vellore Institute of Technology, Chennai
- Feb – May 2021 **Assistant Professor.**
Department of Mathematics
St. Joseph's College, Bangalore
- 2019–2021 **Assistant Professor.**
Department of Mathematics
Sikkim Manipal Institute of Technology, Sikkim
- 2015–2018 **Junior Research Fellow.**
Department of Data Science (formally known as Department of Statistics)
Manipal Academy of Higher Education, Manipal
- 2015–Now **Web Developer**, Using PHP, Python, CSS/html, JavaScript and WordPress, django, Bootstrap.
Currently online:
1. <https://carams.in>
 2. <https://latexworkshopsmit.netlify.com>
 3. <https://texanalytics.com>
 4. <https://icnda.in>

Languages Known

- | | |
|---------|------------------------|
| English | To Read, Write & Speak |
| Tamil | To Read, Write & Speak |
| Hindi | To Read, Write & Speak |
| Kannada | To Speak |

Computer skills

- | | |
|-----------------------|---|
| Programming Languages | Python, Mathematica, Matlab, SageMath, PHP, C/C++, JavaScript, HTML/CSS |
| Statistical Tools | R, SPSS |
| Frame Works | django, react js, vuejs |
| Others | L ^A T _E X, Git, Geogebra, Inkscape, Adobe Photoshop, Adobe Premiere, Microsoft Office |

Subjects Handled

- | | |
|-----------|--|
| 2021–Now | Linear Algebra (UG), Complex Analysis (PG), Multivariate Analysis (PG) |
| 2020–2021 | Quantitative Methods in Management |
| 2019–2021 | Computational Lab (C++ and Matlab) |
| 2019–2021 | Engineering Mathematics II, III, IV (for CSE, ECE, ME) |
| 2019–2020 | Discrete Mathematics |

2019–2020 Numerical Methods
 2018–2019 Linear Models
 2018–2019 Applied Multivariate Analysis
 2016–2018 Linear Algebra, Real Analysis, Measure Theory

Teaching Methodology

Technical: Additional tool like pen tablet for class room presentation
 Live class room lecture recording and online upload. Using a moodle called CANVAS to teach in the class and to follow up with quizzes etc.,
 Currently using microsoft teams for class conduction for the students and managing the materials and discussion at single place. Also uploadig the lecture videos, discussions in stream.

Online: Online content creation for mathematics, \LaTeX , programming languages, software installations etc.,

YouTube Channel: <https://www.youtube.com/channel/UCx1rEg4qR8OIqgj8NdmEixA>

Offline: Comfortable in both Chalk & White Board Presentation

Personal Details

Father Name : Micheal Raj S
 Date of Birth : 05 August, 1989
 Address for Correspondence : No.7, 3rd Cross, 8th Main Road
 Srinivasa Nagar, Trichy - 620 017
 Permanant Address : No.7, 3rd Cross, 8th Main Road
 Srinivasa Nagar, Trichy - 620 017
 Marital Status : Married
 Hobbies : Web Designing using PHP and HTML, Analyzing web frameworks,
 Playing Basket ball

References

Dr. Ravindra B Bapat

Professor,
 Mathematics and Statistical Unit,
 Indian Statistical Institute, Delhi
 Centre, India
 Email : rbb@isid.ac.in;
 Phone : +91 90136 47247

Dr. K. Manjunatha Prasad

Professor,
 Department of Data Science,
 MAHE, Manipal, Karnataka, India
 Email : km.prasad@manipal.edu;
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 Phone : +91 99801 00886

Dr. S.K. Neogy

Professor & Head
Mathematics and Statistical Unit
ISI, Delhi Centre, India
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Dr. P. S. Srinivasan

Associate Professor,
Department of Mathematics,
Bharathidasan University,
Tamil Nadu, India
Email : ps_srini@yahoo.com;
Phone : +91 93803 93939

On Research Portals

Scopus ID : 57192078230
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Microsoft Academic ID : j8g5ihg2-23j0-459j-f816-52f833099h20/DavidRajM/
Publons ID : 3790336
Google Scholar ID : YM-NvPQAAAAJ

Publications (International)

- 2017 Ravindra B Bapat, Surender Kumar Jain, K. Manjunatha Prasad, and M David Raj. “Outer inverses: Characterization and applications”. In: *Linear Algebra and its Applications* 528 (2017), pp. 171–184. doi: 10.1016/j.laa.2016.06.045
- 2018 K. Manjunatha Prasad and M. David Raj. “Bordering method to compute core-EP inverse”. In: *Special Matrices* 6 (Apr. 2018), pp. 193–200
- 2018 Manjunatha Prasad Karantha, David Raj Micheal, and M. Vinay. “An Iterative Method to find Core-EP Inverse”. In: *Bull. Kerala Math. Assoc.* 16.1 (June 2018), pp. 139–152
- 2021 S. Kiran and David Raj Micheal. “Determination of Best-Fit Probability Distribution of Rainfall Data in Sikkim, India”. In: *Water Security and Sustainability*. Ed. by Chandrashekhara Bhuiyan, Wolfgang-Albert Flügel, and Sharad Kumar Jain. Singapore: Springer Singapore, 2021, pp. 65–77. isbn: 978-981-15-9805-0
- 2021 Lintu M.K, Amitha Puranik, Kalesh M. Karun, David Raj Micheal, and Asha Kamath. “Non-linear relationship between BMI and sepsis among critically ill patients: analysis of the MIMIC-III clinical database”. In: *Clinical Epidemiology and Global Health* (2021), (Communicated)
- 2021 David Raj Micheal, Lintu M.K, S.N.S. Acharya, and Asha Kamath. “Mortality Prediction of patients admitted to surgical intensive care unit using deep learning based survival models”. In: *Journal of Critical and Intensive Care* (2021), (Communicated)

Workshop(s) Organised

- 2019 *National Workshop on Typing Scientific Documents in L^AT_EX*. Department of Mathematics, Sikkim Manipal Institute of Technology, Sikkim, India. August 09-10, 2019

As Resource Person

- 2021 *Faculty Development Program (Title: Mathematics of Machine Learning)*. Department of Mathematics, Ayya Nadar Janaki Ammal College (Autonomous), Sivakasi, India. December 23, 2021
- 2018 *Introductory Workshop on SageMath: Matrices, Graphs and Networks*. CARAMS, Manipal Academy of Higher Education, Manipal, India. December 20-21, 2018
- 2017 *National workshop on matrices and graphs*. Department of Mathematics, Sikkim Manipal University, Sikkim, India. January 02-07, 2017

As Tutor

- 2018 *National Workshop on Matrix Analysis and Game Theory*. CARAMS, Manipal Academy of Higher Education, Manipal, India. December 10-21, 2018

Conference Presentations

- 2019 David Raj Micheal and Kiran Sriram. “Determination of Best-Fit Probability Distribution for rainfall data in North-Sikkim Region: A Case Study”. In: *International Conference on Water Security and Sustainability*. Organised by Department of Civil Engineering, Sikkim Manipal Institute of Technology, Sikkim, India in association with Ministry of Environment Forest and Climate Change, Government of India during 13–14 Dec. 2019
- 2017 K. Manjunatha Prasad and M David Raj. “Computational methods to find core-EP inverse”. In: *International Conference on Linear Algebra and its Applications*. Organised by Department of Statistics, MAHE, Manipal. Organised by Department of Statistic, MAHE, Manipal. 2017
- 2016 K. Manjunatha Prasad and M. David Raj. “Iterative method to find core-EP inverse”. In: *Manipal Student Research Colloquium 2017*. Organized by Manipal University, Jaipur, India. 2016
- 2016 K. Manjunatha Prasad, M. David Raj, and Divya P. Shenoy. “Bordering Method to compute Core-EP inverse”. In: *National conference on linear algebra and its applications*. Organized by Department of Mathematics, Sikkim Manipal University, Sikkim, India. 2016
- 2015 K. Manjunatha Prasad and M. David Raj. “Characterization of outer inverses and absorption law”. In: *International Conference on Mathematics, Physics & Allied Sciences-2016*. Organised by Carmel College for Arts Science & Commerce for women, Nuvem, Goa, India in collaboration with International Multidisciplinary Research Foundation. 2015

Scientific Meetings Attended

- 2020 *National Workshop on Special Matrices and Stochastic Games*. Sikkim Manipal Institute of Technology, Sikkim, India. January 06-15, 2020

- 2018 *National Workshop on Matrix Analysis and Game Theory*. CARAMS, Manipal Academy of Higher Education, Manipal, India. December 10-21, 2018
- 2017 *Gian Course on "Matrices with Positive Principal Minors: Theory and Applications"*. Department of Mathematics, Indian Institute of Technology, Madras. December 18–22, 2017
- 2017 *2nd National Workshop-cum-Conference : Computer Applications based on Modern Algebra*. Manipal Institute of Techonology, Manipal, Karnataka, India. 01-04, July, 2017
- 2017 *National Workshop on Functional Analysis and Applications*. Department of Mathematics, Bharathidasan University, Trichy, India. March 09-10, 2017
- 2017 *National workshop on matrices and graphs*. Department of Mathematics, Sikkim Manipal University, Sikkim, India. January 02-07, 2017
- 2016 *Workshop on Computational Mathematics with Sage*. Department of Mathematics, Institute of Chemical Technology, Matunga, Mumbai. September 23-24, 2016
- 2016 *Advanced Instructional School on "Matrix Analysis"*. University, May 2-21, 2016
- 2016 *UGC sponsored state level seminar titled "Linear Algebra and its Applications"*. Sri Bhuvanendra college, Karkala, Karnataka. March 11-12, 2016
- 2016 *Symposium titled "Mini symposium on Complementarity and Game Theory models"*. Indian Statistical Institute, Delhi Centre, Delhi. January 20–21, 2016
- 2015 *National conference on Mathematics and its Applications*. Adichunchanagari Institute of Technology, Chikkamagaluru. December 22 and 23, 2015

Place : Majitar
Date :


(David Raj Micheal)