

# Dr. M. Mohamed Ismail M.Sc., M.Tech., Ph. D

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## **Education:**

- **PhD** in Information Technology from Manonmaniam Sundaranar University, Tirunelveli.
- M.Tech (Information Technology) from Karnataka University, Karnataka.
- M.Sc (Information Technology) from Jamal Mohamed College, Trichy.
- **B.Sc** (Computer Science) from Madurai Kamaraj University, Madurai.

## **Experience:**

- Assistant Professor in VHNSN College, Virudhunagar. [6<sup>th</sup> June 2019 Hitherto].
- Assistant Professor in The New College, Chennai. [3 years].
- Research Scholar in Sadakathullah Appa College, Tirunelveli. [3 Years].
- Assistant Professor in National College of Engineering, Tirunelveli. [One and Half Year].
- Senior Research Fellow (SRF) for Defence Research & Development Organization (DRDO), Funded research project at Laser Communication Laboratory, Kings College of Engineering, Tanjore. [One Year].
- Research Associate at **Indian Institute of Astrophysics** (**IIAP**), Department of Science & Technology, Government of India, Bangalore, India. [7 Years].

## **Computer Proficiency:**

Software : LabVIEW, MATLAB, IDL, C, C++ and .NET

Web Development : HTML, ASP, ASP.NET, PHP

Databases : Oracle, SQL Server and MySQL

## **Area of Specialization:**

- Adaptive Optics & Instrumentation
- Web Application Development

#### **Lectures Delivered:**

- Acted as Resource Person for the MINERVA '22 held at VHNSN College (Autonomous), Virudhunagar on 7<sup>th</sup> May 2022 and presented a Lecture on the Topic "**Interview Techniques**".
- Acted as Resource Person for the MINERVA '21 held at VHNSN College (Autonomous), Virudhunagar on 16<sup>th</sup> March 2021 and presented a Lecture on the Topic "**Interview Techniques**".
- Acted as Resource Person for the Guest Lecture held at Wavoo Wajeeha Women's college
  of Arts & Science, kayalpatnam, on 31.01.2020 and presented a Lecture on the Topic
  "Introduction to PHP".
- Acted as Resource Person in the Computer Training Programme for Rural School Students, Kadambankulam in VHNSN College (Autonomous), Virudhunagar on 5-2-2020.

#### **Certificate Courses:**

- 1. Completed Online Certificate Course on LaTeX101x: LaTeX for Students, Engineers, and Scientists from 24 September 2019 to 2 December 2019.
- 2. Microsoft Certified Systems Engineer (MCSE) Certification:



### **Publications:**

- 1 Book
- 3 Book Chapters Published
- 17 International Journals
- 7 International Conferences
- 5 National Conferences

**Seminar/Workshop Participated: 23** 

**Workshop Organized:** 6

#### **Book Publications:**

 Published a Book titled "Non-Neighbor Topological Indices", Published by Lambert Academic Publications, 2019-2020, ISBN No: 978-620-0-32313-2.

## **Book Chapters Published:**

- Published a Book Chapter entitled "Analytical Skills" in Employability Skills Book published by Virudhunagar Hindu Nadars' Senthikumara Nadar College (Autonomous), Virudhunagar with ISBN: 978-93-81723-97-5. Sep 2020
- 2. Published a Book Chapter entitled "Non-Neighbor Topological Indices of Jahangir Graphs" in "Emerging Trends & Milestones in 2020", published by Virudhunagar Hindu Nadars' Senthikumara Nadar College (Autonomous), Virudhunagar with ISBN: 978-81-942052-9-6. Feb 2021
- 3. A Book Chapter entitled "Online Teaching and Learning in Mathematics" has been accepted for publication in the book "Online Learning and Research: Alternative Dimensions of knowledge Cultivation during COVID-19 Pandemic".

#### **Journal Publications:**

- 1. Dr.A.Rizwana, **Dr.M.Mohamed Ismail**, "Non-Neighbor Harmonic Index of Glued Network", Journal of Information and Computational Science, Volume 11, Isssue 9, 2021 Page No: 475-483. DOI:10.12733.JICS.2021.V11I9.535569.3634.
- 2. Dr.A.Rizwana, **Dr.M.Mohamed Ismail**, "Non-Neighbor Topological Indices of Generalized Prism Network", GIS Science Journal , Volume 8, Issue 10, 2021. (Scopus Indexed)
- 3. **M.Mohamed Ismail**, "Performance Analysis of Phase Estimation Algorithms for Interferometric Data", International Journal of Scientific Engineering and Sciences (IJSES), Vol.3, Issue 2, Mar'19, ISSN: 2456-7361.
- 4. A.Rizwana, G. Jeyakumar and **M.Mohamed Ismail**, "Perfect Non-Neighbor Harmonic Graphs", International Journal of Computer Sciences and Engineering (IJCSE), Vol. 6, Issue 10, October 2018, E-ISSN: 2347-2693
- 5. **M. Mohamed Ismail** and M.Mohamed Sathik, "Implementation of Efficient algorithm for wavefront error estimation using interferometer wavefront sensor", Sadakath A Research Bulletin, Vol. 3, July 18, ISSN: 2347-7644.
- 6. **M.Mohamed Ismail**, "An Experimental Analysis of Polarization Shearing Interferometer based Wavefront Sensor", International Journal of Scientific Engineering and Sciences (IJSES), Vol.1, Issue 7, July '17, ISSN: 2456-7361.
- 7. **M.Mohamed Ismail** and M.Mohamed Sathik, "Simulation of Phase screen and Characterization", Sadakath A Research Bulletin, Vol. 3, Jan'16, ISSN: 2347-7644.
- 8. **M.Mohamed Ismail** and M.Mohamed Sathik, "Design and implementation of pipelined parallel architecture for fast Wavefront Correction of interferometric data", International Journal of Computer Trends and Technology (IJCTT), Vol. 31, Dec'15, ISSN: 2231-2803.
- 9. **M. Mohamed Ismail** and M.Mohamed Sathik, "*Lateral shearing interferometry with Zernike mode for wavefront error analysis*", International Research Journal of Engineering and Technology (IRJET), Vol. 2, Issue 9, Dec'15, ISSN: 2395-0056.

- 10. **M. Mohamed Ismail** and M.Mohamed Sathik, "*Imaging through Kolmogorov model of atmospheric turbulence for shearing interferometer wavefront sensor*", International Research Journal of Engineering and Technology (IRJET), Vol.2, Issue 8, Nov'15, ISSN:2395-0056.
- 11. **M. Mohamed Ismail** and M.Mohamed Sathik, "Fast Wavefront Reconstruction for Interferometric Data using LabVIEW", International Journal of Innovative Research in Computer and Communication Engg. (IJIRCCE), Vol.3, Issue 11, Nov'15, ISSN: 2320-9801.
- 12. **M. Mohamed Ismail** and M.Mohamed Sathik, "A Study on atmospheric turbulence with Shearing Interferometer wavefront sensor", International Journal of Innovative Research in Science, Engineering and Technology (IJIRSET), Vol. 4, Issue 3, Mar'15, ISSN:2319 8753.
- 13. **M. Mohamed Ismail** and M.Mohamed Sathik," *Polarization Shearing Interferometer (PSI) Based Wavefront Sensor for Adaptive Optics*", International Journal of Advanced Research in Computer Science and Software Engineering (IJARCSSE), Vol.3, Issue 12, Dec'13, ISSN: 2277 128X.
- 14. **M. Mohamed Ismail** and M.Mohamed Sathik, "*Performance and Evaluation of Interferometric based Wavefront Sensors*", International Journal of Scientific & Engineering Research (IJSER), Vol. 4, Issue 7, July'13, ISSN: 2229-5518.
- 15. **M.Mohamed Ismail** and A.K. Saxena, "Data Acquisition and Reduction Algorithm for shearing Interferometer based Long Trace Profilometer", International Journal of Computer Trends and Technology (IJCTT), Vol. 9, Mar'14, ISSN: 2231-2803.
- 16. **M. Mohamed Ismail** and A.K. Saxena, "*Data Acquisition and Reduction Algorithm for Solar Differential Image Motion Monitor*", International Journal of Computer Science information and Engg., Technologies (IJCSIET), Vol. 3, Issue 2, Nov'12, ISSN 2277-4408.
- 17. S.S.Hasan, A.K.Saxena, S.P.Bagare, **M.Mohamed Ismail**, published by Indian Institute of Astrophysics, "*Development of Solar Differential Image Motion Monitor at IIA, for the NLST site characterization program*", IIA Technical Report S.No.4,IIA-TRS-0410.

## **Papers presented at International Conferences:**

- 1. **M.Mohamed Ismail** and M.Mohamed Sathik. "Algorithm for Wavelet denoising of interferometric fringe data using virtual instrumentation", Proceedings of International Conference on Innovative Trends in Mechanical & Civil Engineering (ICITMC' 2015), on 10<sup>th</sup> April 2015, held at PET Engineering College, Vallioor.
- 2. **M.Mohamed Ismail** and M.Mohamed Sathik "Simulation of Atmospheric Turbulence and Wavefront Sensing by Means of Shearing Interferometer" Proceedings of International Conference on Bio Medical Applications ('ICBMA'15'), on 11<sup>th</sup> March 2015, held at SCAD Engineering College, Tirunelveli Published at International Journal of Advanced Research Trends in Engineering and Technology (IJARTET), Vol. II, Special Issue, February 2015.
- 3. **M.Mohamed Ismail** and M.Mohamed Sathik "Real time Data Acquisition with fast and highperformance control algorithm for shearing interferometer based wavefront sensor", Proceedings of International Conference on Recent Trends in Engineering and Management (ICRTIEM' 2014), on 22<sup>nd</sup> March 2014, held at Ranippettai Engineering College, Vellore.

- 4. **M.Mohamed Ismail** and M.Mohamed Sathik "Theoretical Analysis and Mitigation of Atmospheric Turbulence Effects in Astronomical Telescope using Interferometric Wavefront Sensor", Proceedings of International Conference on research vogues in inventive engineering (Lykons' 2k14), 26<sup>th</sup> February 2014, held at Satyam College of Engineering, Kanyakumari.
- 5. **M.Mohamed Ismail** and M.Mohamed Sathik "Efficient Centroiding Algorithms for Shack-Hartmann Wavefront Sensor", Proceedings of International Conference on Trends in Engineering (ICMACE' 2014), on 19<sup>th</sup> & 20<sup>th</sup> February 2014, held at Tamilan College of Engineering, Kanyakumari.
- 6. A. Arockia Bazil Raj, **M. Mohamed Ismail**, J. Niranjan Samuel, J. Arputha Vijaya Selvi, "Implementation of Adaptive Fuzzy Logic Controller in FPGA for Steering Tip-Tilt Mirror in Free Space Optical Communication" IEEE International Conference on Computational Intelligence and Computing Research (ICCIC' 2011), on 5<sup>th</sup> Dec 2011, held at Noorul Islam University, Kumarakoil.
- 7. A.K. Saxena, R. Mukund, R. Ismail Jabilullah, **M. Mohamed Ismail**, "A New Polarization Shearing Interferometer based Long Trace Profilometer (Version II)" 3<sup>rd</sup> International Workshop on Metrology for X Ray Optics, Daegu, Korea, May 2006.

## Papers presented at National Conferences:

- 1. A.Rizwana, and **M.Mohamed Ismail** "Computation on Energy of Molecular Graphs" Proceedings of National Conference on Recent Trend in Graphs (NCRTG-2K20) held at Sadakathullah Appa College (Autonomous) on 5<sup>th</sup> February 2020 with ISBN NO: 978-81-942482-5-5.
- 2. **M.Mohamed Ismail** and M. Mohamed Sathik "Denoising Interferometric images using LabVIEW for adaptive optics applications", Proceedings of National Conference on Recent Trends in Electrical, Electronics & Communication Engineering (RTEECE' 2015), 18<sup>th</sup> March 2015, held at PET Engineering College, Vallioor.
- 3. **M.Mohamed Ismail** and M. Mohamed Sathik "Optimizing Wavefront Error Estimation Using Interferometric Based Wavefront Sensor", Proceedings of National Conference on Recent Trends in Electrical, Electronics & Communication Engineering (RTEECE' 2014), 9<sup>th</sup> April 2014, held at PET Engineering College, Vallioor.
- 4. S.S.Hasan, A.K.Saxena, S.P.Bagare, J.P.A.Samson, **M.Mohamed Ismail**, Rajendra B.Singh & T.Aditya, "Development of Solar Differential Image Motion Monitor at IIA, for the NLST site characterization program", presented at the 2009 ASI Meeting.
- 5. S.S.Hasan, A.K.Saxena, **M.Mohamed Ismail** & Rajendra B.Singh, "In house Development of SDIMM,SHABAR and Micro Thermal equipment's for site survey and characterization program of NLST", Poster presented in IIA In-house Scientific Meeting, April 15-16, 2008.

## **Seminar/Workshop Participated:**

1. Five days FDP on ICT Academy & Cloud Practitioner (AWS) conducted by ICT Academy on 20<sup>th</sup> June to 24<sup>th</sup> June 2022 at Kamaraj College of Engineering and Technology, Virudhunagar.

- 2. Five days FDP on Fundamental of AI conducted by ICT Academy on 13 Sep 2021 to 17 Sep 2021.
- 3. Faculty Development Program on "Enable relationship Enhance Skills Empower students" Organized by Department of Management Studies, V.H.N.S.N College(Autonomous) Virudhunagar on September 19, 2019.
- 4. Three days Faculty Development Program on "*Introduction to Python Programming*" at National Engineering College, Kovilpatti on August (01-08-2019 to 03-08- 2019).
- 5. One day workshop on "Quality and Accreditation: Students Perspective", Organized by IQAC of The New College(Autonomous), Chennai on 19<sup>th</sup> March 2019.
- 6. One day workshop on "*IOT and Micro Services*" Organized by Department of computer Applications, The New College(Autonomous), Chennai on 6<sup>th</sup> March 2019.
- 7. One day workshop on "Curriculum Designing and Teaching Learning Enhancement, Organized by IQAC of The New College(Autonomous), Chennai on 27<sup>th</sup> February 2019.
- 8. One day workshop on "Art of Writing Research Papers and Funding' Organized by IQAC of The New College(Autonomous), Chennai on 8<sup>th</sup> October 2018.
- 9. Seven days Short Term course on "IT and Data Analysis" (Feb 9-17) sponsored by UGC Human Research Development Centre with Aligarh Muslim University, The New College, Chennai.
- 10. A two days workshop on "*PHP and Web Server*" Organized by department of Computer Applications, PET Engineering College on 13<sup>th</sup>,14<sup>th</sup> February 2014.
- 11. Two days National level Workshop on "*Ethical Hacking Techniques*" organized by the Department of Computer Science and Engineering and Computer Society of India on 18<sup>th</sup>, 19<sup>th</sup> February 2013.
- 12. Two days ISTE Workshop on "*Research Methods in Education Technology*" Conducted by Indian Institute of Technology, Bombay at National College of Engineering 2<sup>nd</sup> & 9<sup>th</sup> Feb 13.
- 13. Two days ISTE Workshop on "Aakash for Education" conducted by Indian Institute of Technology, Bombay at National College of Engineering on 10<sup>th</sup>,11<sup>th</sup> November 2012.
- 14. One-day Workshop on "*Digital Image Processing using Matlab*" organized by the Department of Electronics & Communication Engg., National College of Engineering on 25<sup>th</sup> Sep 2012.
- 15. One-day National Level Seminar on "Android Mobile Applications", at National College of Engineering and CSI on 22<sup>nd</sup> September 2012.

- 16. Four days' Workshop on "*Multimedia and Web Designing*" organized by the Department of Computer Science, National College of Engineering, Sep (10-13) 2012.
- 17. Two days Faculty Development Program on "Free Open Source Software" at National College of Engineering and CSI, August 2012.
- 18. Two days Faculty Development Program on "Loophole Ethical Hacking Workshop" organized by the AIESEC and Indian Institute of Technology (IIT) Kharagpur at National College of Engineering, 23 24 August 2012.
- 19. One day National Level Seminar on "Advancements in Digital Information Sources and Services for Education and Research (ADISSER 2012)" on 19<sup>th</sup> July at National College of Engineering.
- 20. One-day National Level Workshop on "*Network Simulation Using Ns-2*", at National College of Engineering and CSI on 10<sup>th</sup> March 2012.
- 21. IET sponsored National Level Seminar on "*Recent trends in Cloud Computing*", at National College of Engineering on 17<sup>th</sup> December 2011.
- 22. Five days Short Term Training Program (STTP) on "Guided and Free Space Optical Communication Systems" (Aug 16 to 20, 2011) at National Institute of Technology (NIT), Karnataka.
- 23. Two days workshop on "High Performance System Design using Xilinx & Matlab" (18<sup>th</sup> and 19<sup>th</sup> April-2011) at Kings College of Engineering, Tanjore.

## **Workshop Organized**

- 1. Organized one day Seminar on "**Blockchain Technology**" Conducted by the ICT Academy on 10<sup>th</sup> May 2022 at VHN Senthikumara Nadar College (Autonomous), Virudhunagar.
- 2. Acted as an Organizing Secretary and Organized a webinar on "Exploring 3D Animation and Visual Effects" organized by the Department of Computer Applications, VHN Senthikumara Nadar College on 9<sup>th</sup> June 2021.
- 3. Acted as an Organizing Secretary and Organized a webinar on "**Discover the Secrets of 3D Animation and VFx** " organized by the Department of Computer Applications, VHN Senthikumara Nadar College on 5<sup>th</sup> November 2020.
- 4. Workshop coordinator for Four Days Workshop on "Multimedia and Web Designing" organized by the Department of Computer Science and Engineering and S2I Animation Academy, Sep 2012.

- 5. Workshop coordinator for Two Days Workshop on "LOOPHOLE ETHICAL HACKING WORKSHOP" organized by the AIESEC and Indian Institute of Technology (IIT) Kharagpur, August 2012.
- 6. Workshop coordinator for one-day National Level Workshop on "NETWORK SIMULATION USING NS-2" organized by the Department of Computer Science and Engineering and Computer Society of India on 10th March 2012.