Name	Dr. V. INDIRA
Designation	Asst. Professor & Head Department of Mathematics
Address for communication with E-Mail & Mobile No.	No:13, 12th Cross street, Bharathy Nagar, Karuvadikuppam, Puducherry – 605 008 indirapkac@gmail.com 88070 39087

Educational Qualification (from UG Level onwards)	Degree	Institution/University	Month & Year of Passing	Class/%/CGPA
	B. Sc (Mathematics)	Kandasamy Naidu College for Women, Cuddalore.	1992	87%
	M. Sc (Mathematics)	Kandasamy Naidu College for Women, Cuddalore.	1994	75%
	M. Phil (Mathematics)	Madurai Kamarajar University, Madurai.	2002	62%
	Ph.D	Karpagam University, Coimbatore.	2013	Highly commended

Teaching Experience	**UG:**	Years: 21 Months: 2	**PG:**	Years: 12 Months:

Research Experience/Area of Specialisation	Application of Statistics in fault diagnosis using machine learning algorithm.

No. of Papers Presented in Conference/ Seminars/ Symposia	**National:**		03	**International:**	04
No. of Papers Published in Journals/Books	**National:**		NIL	**International:**	10
No. of Conference/ Seminars/Symposia Organized	**Workshop:**	01	**Seminar: NIL**	**Conference:**	NIL
No. of Conference/ Seminars/Symposia Attended	**Workshop:**	07	**FDP: 08** **Seminar: 03**	**Conference:**	NIL

Refresher course attended	02
Orientation course attended	01

Details of Papers Presented in Conference/ Seminars/ Symposia	1. **Dr. V. Indira** and et-al**, "Minimum Sample Size Determination In Machine Learning Approach To Fault Diagnosis Using Power Analysis And Entropy Measures Of Vibration Signals"**, Advances in Mechanical and Building Sciences in the 3rd Millennium, VIT University, Vellore, Tamil Nadu, India, December 14-16, 2009. 2. **Dr. V. Indira** and et-al**,** "**Optimum Data Size For Fault Diagnosis Of Bearing"** Advances in Mechanical and Building Sciences in the 3rd Millennium, VIT University, Vellore, Tamil Nadu, India, December 14-16, 2009. 3. **Dr. V. Indira** and et-al **"Optimum Sample Size For Machine Learning Approach To Fault Diagnosis Of Automobile Hydraulic Break System",** Methodologies, Automation and Research Trends" SMVEC, Pudhucherry, India, 12.12.2012 to14.12.2012. 4. **Dr. V. Indira** and et-al **"Sample SizeDetermination for the Auditory System with Auditory Brainstem Response using Power Analysis**", II international Conference on Simulation Modelling and Analysis-COSMA-2011, Amrita School of Engineering, Coimbatore, 14-16, December-2011. 5. **Dr. V. Indira** and et-al**, "Application of Power Analysis in Determination of Minimum Sample Size for FaultDiagnosis of a Centrifugal Pump"**, I Annual Research Congress-KUARC-2009, 07.12.2009 to 10.12.2009. 6. **Dr. V. Indira** and et-al, **"Optimum Data Size For Fault Diagnosis Of Monoblock Centrifugal Pump"**, II Annual Research Congress-KUARC-2010, 08.12.2010 to 11.12.2010. 7. **Dr. V. Indira** and et-al, **"Sample Size Determination For The Auditory System With Auditory Brainstem Response Using Power Analysis"** III Annual Research Congress-KUARC-2011, 09.12.2011 to 10.12.2011

Details of Papers Published in Journals/Books	1. **Dr. V. Indira** and et-al **"Minimum Sample Size Determination Of Vibration Signals In Machine Learning Approach To Fault Diagnosis Using Power Analysis"** Expert Systems with Applications, Elsevier publications, 37(12), 8650–8658, December 2010. . ISSN: **0957-4174** 2. **Dr. V. Indira** and et-al**, "A Method For Calculation Of Optimum Data Size And Bin Size Of Histogram Features In Fault Diagnosis Of Mono-Block Centrifugal Pump"**, Expert Systems with Applications, Elsevier publications, Vol. 38, Issue 6, 7708–7717, 2011. ISSN: **0957-4174** 3. **Dr. V. Indira** and et-al **, "A Method For Minimum Sample Size Calculation For A Classification Problem In Fault Diagnosis Of Centrifugal Pump"**, International Journal of Statistics and Systems, Research India Publications, 5(2) , 183–202, 2010. I**SSN 0973-2675** 4. **Dr. V. Indira** and et-al **,** "**Determination Of Sample Size Using Power Analysis And Optimum Bin Size Of Histogram Features**" Int. J. Data Analysis Techniques and Strategies, 3(1) , 21-41, 2011, **Print ISSN:** 1755-8050 **Online ISSN:** 1755-8069 5. **Dr. V. Indira** and et-al **, Use of histogram features for decision tree-based fault diagnosis of monoblock centrifugal pump,** Int. J. of Granular Computing, Rough Sets and Intelligent , Systems, Inderscience Publishers, Volume 2, No. 1, 23-36, 2011 6. **Dr. V. Indira** and et-al**, "Sample Size Determination For Classification Of EEG Signals Using Power Analysis In Machine Learning Approach",** International Journal of Advanced Research in Engineering and Technology (IJARET), IAEME, ISSN 0976 – 6480(Print), ISSN 0976 – 6499(Online) Volume 3, Number 1, January - June (2012) 7. **Dr. V. Indira** and et-al**,** "**Fault diagnosis of monoblock centrifugal pump using SVM"**, Engineering Science and Technology, an International Journal, Elsevier publications, Volume 17, Issue 3, September 2014, Pages 152–157. 8. **Dr. V. Indira** and et-al**, "Determination of minimum sample size for fault diagnosis of automobile hydraulic brake system using power analysis"**, Engineering Science and Technology, an International Journal, Elsevier publications, Volume 18, Issue 1, March 2015, Pages 59–69 9. **Dr. V. Indira** and et-al**, "Discriminating the Pneumonia-Positive Images from COVID-19-Positive Images Using an Integrated Convolutional Neural Network",** Mathematical Problems in Engineering, an International Journal, Hindawi Publications, Volume 2022, article ID 5643977, 2022. 10.**Dr. V. Indira** and et-al**, "Misfire Detection in Spark Ignition Engine Using Transfer Learning"**, Computational Intelligence and Neuroscience, an International Journal, Hindawi Publications, Volume 2022, article ID 7606896, 2022.

Details of Conference/ Seminars/Symposia Attended	1. Attended a "**SDP on Probability and Queuing Theory**", 21.11.2005-03.12.2005 (13 days), Mailam Engineering College, Puducherry . 2. Attended a "**SDP on High Impact Teaching Skills**", 20.10.2009 to 24.10.2009 (5 days), SMVEC at Puducherry. 3. Attended a "**SDP on Alan Turing Centenary Year Workshop On Advanced Topics In Theoretical Computer Science**", 16.11.2012-18.11.2012(3 Days), Anna University, Chennai. 4. Attended a "**Work Shop on NBA-New Outcome Based Accreditation**"29.04.2013(1Day), R.M.K. Engineering College, Chennai. 5. Attended a "**National Vocational Education Qualification Framework Workshop**", 25.08.2013, Podicherry Engineering College, Puducherry. 6. Attended a "**Workshop on Advanced Teaching Techniques**" 17.08.2015 to19.08.2015 (3 days), Perunthalaivar Kamarajar Arts College, Puducherry. 7. Attended a National Seminar on "**Quality Enhancement in Teaching, Research and Extension in Higher Learning Institutions-Problems and Prospects**". 20.08.2015 to 21.08.2015 (2 days), Kanchimamunivar centre for P.G. Studies, Puducherry. 8. Attended a **First state level NAAC awareness workshop** conducted by State level Quality Assurance Cell, 10.01.2017 to 11.01.2017(2 Days), Bharathidhasan Government College for Women(Autonomous), Puducherry. 9. Attended a **National Workshop on Real Analysis**, 15.03.2108 to 16.03.2018(2 days), Kanchimamunivar centre for P.G. Studies, Puducherry. 10. Attended an UGC sponsored "**One day workshop on Training of Trainers for Teachers in Higher Education**" on 6.09.2019, Cultural cum convention complex, Pondicherry University. 11. Participated a five days online workshop **"Interactive e-content"** organized by IITB remote centre of Women's Polytechnic College, Puducherry from 4.05.2020 to 8.05.2020. 12. Participated a one day webinar on **"Introduction to LaTeX"** organized by Loganatha Naraynasamy Government college (Autonomous) on 28.05.2020. 13. Participated o one day Webinar on **"Tips and Tricks for Effective Research"** organized by Idhaya College for Women, Kumbakonam on 15.05.2020.

Details of Refresher course attended	1. Attended a Refresher course in "**Mathematics and Statistics**" conducted by UGC- HRDC, Pondicherry University, Pondicherry from 05.09.2018 to 25.09.2018 2. Attended online interdisciplinary two weeks **Refresher Course** on "**Managing online classes & Co-creating MOOCS 12.0**" from 7.3.2022 to 21.03.2022, organized by Teaching Learning Centre, Ramanujan College, University of Delhi.
Details of Orientation course attended	Attended an UGC Sponsored **114th Orientation Programme**, 15.09.2015 to 12.10.2015 (28 Days), HRDC-Pondicherry University, Puducherry.

Other relevant information, if any (Achievements, Awards, etc.)

NPTEL Online Certification courses completed

S. No	Title of the course	Duration	Percentage of Marks	Whether it is an FDP or Not
1	Basic linear algebra	January to March 2019 (8 weeks)	84% , Topper with Elite and Silver Medal	No
2	Transform calculus and its applications in differential equations	January to April 2019 (12 weeks)	86% Elite with Silver Medal	FDP
3	Introduction to abstract group theory	August to October 2019 (8 weeks)	72% Elite	FDP
4	Introduction to abstract and linear algebra	August to October 2019 (8 weeks)	71% Elite	FDP
5	Descriptive Statistics with R software	August 22 to October 14, 2022	86% Elite with Silver Medal	FDP
6	Probability and Statistics	January to April 2023	81% Topper with Elite and Silver Medal	FDP

Books Published:

1. **Dr.V.Indira,** T.Gayathri, S.Parimala, G.Manjula**"Engineering Mathematics I",** Aagash Nekaa Publications, 2012.

2. **Dr.V.Indira,** T.Gayathri, S.Parimala, **"Engineering Mathematics I"**, Aagash Nekaa Publications, 2013.

3. **Dr.V.Indira,** T.Gayathri, S.Parimala, **"Engineering Mathematics II"**, Aagash Nekaa Publications, 2014.

4. **Dr.V.Indira,"Mathematical Foundation of Computer Science"**, Study Material for DDE – Pondicherry University, Puducherry.