



Dr. A. BEATRICE DOROTHY
Assistant Professor
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Objective

A passionate and results-driven professional with expertise in Business Analytics, Data Science and Computer Science applications, dedicated to teaching, research and continuous learning.

Education

Year	Courses	Percentage	Institution
2016	Doctorate of Philosophy in Computer Science	Qualified in May 2021	St. Joseph's College, Tiruchirappalli.
2014-2015	Master of Philosophy in Computer Science	82% (First Class with Distinction)	St. Joseph's college, Tiruchirappalli.
2000-2003	Master of Computer Applications	74.6% (First Class)	Bishop Heber College, Tiruchirappalli.
1997-2000	Bachelor of Science in Chemistry	65% (First Class)	Holy Cross College, Tiruchirappalli.

Teaching Experience

Year	Position	Institution
December 2020 – Till date	Assistant Professor	St. Joseph's College, Tiruchirappalli.
June 2004 – January 2005	Lecturer	Bishop Heber College, Tiruchirappalli.

Research Experience

Paper Published (Scopus): 8

Book Chapter: 1

Book Published: 1

Research Areas: Internet of Things, Quantum Computing, Network communications and Data Security.

PhD Thesis: "Multi-Level Security Architecture for IoT Data using Quantum Computing".

Area of Interest

Internet of Things, Quantum Computing, Network Communication, Artificial Intelligence, Data Mining, Business Analytics and Machine Learning

Papers Published in the Journals notified on UGC Website

1. A. Beatrice Dorothy and Dr. S. Britto Ramesh Kumar, "Internet of Things: Data Management and Security", International Journal of Control Theory and Applications (IJCTA), Volume 9, Issue 26, 2016, pp. 115-120. (Scopus Indexed)
2. A. Beatrice Dorothy, Dr. S. Britto Ramesh Kumar and J. Jerlin Sharmila, "IoT based Home Security through Digital Image Processing Algorithms", IEEE, 2017, pp. 20-23. (Scopus Indexed)
3. A. Beatrice Dorothy and Dr. S. Britto Ramesh Kumar, "DORBRI: An Architecture for the DoD Security Breaches through Quantum IoT", Springer, 2018, pp. 491-496. (Scopus Indexed)
4. A. Beatrice Dorothy and Dr. S. Britto Ramesh Kumar, "An approach for IoT security using Quantum key distribution", International Journal of Scientific and Technology Research (IJSTR), Volume 8, Issue 8, 2019, pp. 1569-1574. (Scopus Indexed)
5. A. Beatrice Dorothy and Dr. S. Britto Ramesh Kumar, "Enhancing Channel Security by Error Detection and Correction during Quantum Key Distribution using Hamming Code with Modified Elgamal", International Journal of Scientific and Technology Research (IJSTR), Volume 8, Issue 12, 2019, pp. 3428-3432. (Scopus Indexed)
6. A. Beatrice Dorothy and et.al, "Real-Time Intelligent Information Protection Using AI and Machine Learning Model", Eighth International Conference on Science Technology Engine, IEEE, April 2023. (Scopus Indexed)
7. A. Beatrice Dorothy and et.al, "6G Networks in Unmanned Ariel Vehicle Intelligent Internet of Things Secured Communication", 6th International Conference on Contemporary Computing and Informatics, IEEE, January 2024. (Scopus Indexed)
8. A. Beatrice Dorothy and et.al, "AI-Driven Threat Intelligence in Cloud Computing Detecting and Responding to Cyber Attacks", International Conference on Intelligent Algorithms for Computational Intelligence Systems, IEEE, October 2024. (Scopus Indexed)
9. A. Beatrice Dorothy and et.al, "Overview of Federated Learning", International Research Journal of Modernization in Engineering Technology and Science, Volume 6, Issue 02, 2024, pp. 603-609
10. A. Beatrice Dorothy and et.al, "Maximizing Forensic Analysis Efficiency Through Integrated AI Models", International Research Journal of Modernization in Engineering Technology and Science, Volume 6, Issue 01, 2024, pp. 3618-3620
11. A. Beatrice Dorothy and et.al, "Advancements in Sentiment Analysis: A Detailed Exploration of Supervised and Unsupervised Learning Approaches", International Research Journal of Modernization in Engineering Technology and Science, Volume 6, Issue 01, 2024, pp. 3654-3660
12. A. Beatrice Dorothy and et.al, "Securing Voices, Personalizing Interactions: Exploring Speaker Identification in Voice Assistant Systems", International Research Journal of Modernization in Engineering Technology and Science, Volume 6, Issue 01, 2024, pp. 2576-2581
13. A. Beatrice Dorothy and et.al, "Advancement in Solar - Powered Electric Vehicles: An Integrated Approach", International Research Journal of Modernization in Engineering Technology and Science, Volume 6, Issue 01, 2024, pp. 2794-2799
14. A. Beatrice Dorothy and et.al, "SQL Injection Attack Detection Using Machine Learning", International Research Journal of Modernization in Engineering Technology and Science, Volume 6, Issue 01, 2024, pp. 2813-2816.

Papers Presented in Conferences

1. A. Beatrice Dorothy, S. Britto Ramesh Kumar and J. Jerlin Sharmila, “IoT Based Home Security through Digital Image Processing Algorithms”, World Congress on Computing and Communication Technologies (WCCCT), 02-04 February 2017.
2. A. Beatrice Dorothy and S. Britto Ramesh Kumar, “DORBRI: An Architecture for the DoD Security Breaches Through Quantum IoT”, International Conference on Computer Networks and Communication Technologies, May 2018.
3. A. Beatrice Dorothy and et.al, “Real-Time Intelligent Information Protection Using AI and Machine Learning Model”, Eighth International Conference on Science Technology Engine, April 2023.
4. A. Beatrice Dorothy and et.al., “6G Networks in Unmanned Ariel Vehicle Intelligent Internet of Things Secured Communication”, International Conference on Contemporary Computing and Informatics (IC3I), February 2024.
5. A. Beatrice Dorothy and E. Easwar, “Future Military Battlefield Information Networks: Cybersecurity Challenges”, International Conference on Communication, Computing and Information Technology (ICCCMIT), February 2024.
6. A. Beatrice Dorothy and et.al, “AI-Driven Threat Intelligence in Cloud Computing Detecting and Responding to Cyber Attacks”, International Conference on Intelligent Algorithms for Computational Intelligence Systems (IACIS), October 2024.

Papers Presented in Seminars

1. A. Beatrice Dorothy and K. SivaPriya, “Green Synthesis and Clean Chemistry: Utilizing CO for Transforming Carbon Nanotubes into Advanced Materials”, National Seminar on Recent Advances in Biomedical Technology – February 2024
2. A. Beatrice Dorothy, Hari Priya and Reethi, “Comparative Analysis of AI frameworks developed using Tensorflow & pytorch”, National Seminar on Leveraging Artificial Intelligence in Business Operations – February 2024

Books / Book Chapters

- ❖ Chapter Title: Advanced IoT-ML Fusion: Sewage Infrastructure Monitoring & Worker Health Management
Publication date: 2023/9
Book: Applications of IoT in Science and Technology ISBN: 978-93-93622-78-5
Pages: 208-215
Publisher: IOT Academy Publishers
- ❖ Book Title: Data Science for Beginners
Publication date: 2023/3/21
Publisher: Global Aasan Research ISBN: 978-81-962595-4-9

Awards Received

Best Women Faculty Award – 2024

Academic Member

IBM Data Science Community

IAENG International Association of Engineers

The International Society for Applied Computing

Acted as Resource Person

Type of Programme	Title	Date
Seminar	Seminar on Open AI Tools	2023-09-26
Seminar	Seminar on Open AI Tools	2023-09-01
Seminar	Seminar on Open AI Tools	2023-08-01
Seminar	Seminar on Millet Data Analysis with Power BI	2023-03-14
Workshop	Workshop on Python for Data Science	2023-03-06
Workshop	A National Level Workshop on Advanced Excel for Data Analysis	2022-12-19
Workshop	A National Level Workshop on Data Analytics using MS Excel	2022-09-19
Workshop	Workshop on Research	2022-05-26
Intercollege Technical Symposium	MetaFest 2K22	2022-04-21

Patent

Patent No.	Name of the Patent	Patent Type	Patent Date
202341079921	Water Quality Monitoring and Awareness Message System Model in Smart Cities	Applied	2023-12-22
202341017944	Machine Learning Based Fully Automated Brain Tumour Detection and Classification System	Applied	2023-03-31
202341015770	Data Analysis Perspective on Artificial Intelligence and Machine Learning in Human Resource Management for Sales	Applied	2023-03-17

Personal Details

Name : Dr. A. Beatrice Dorothy
Gender : Female
DOB : 26.01.1980
Religion : Roman Catholic
Marital Status : Married
Husband's Name : D. Brice Antony
Nationality : Indian
Language Competences : Tamil & English

References

1. Prof. A. Charles
Former Head & Associate Professor in Computer Science,
St. Joseph's College (Autonomous),
Tiruchirappalli - 620 002.

2. Dr. S. Britto Ramesh Kumar
Assistant Professor in Computer Science,
St. Joseph's College (Autonomous),
Tiruchirappalli - 620 002.

Declaration

I, A. Beatrice Dorothy, declare that the information furnished above is true to the best of my knowledge.

(Dr. A. Beatrice Dorothy)