

T. KALAISELVI

Assistant Professor – Examination Support System

Firebird Institute of Research in Management

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PROFILE SUMMARY

T. Kalaiselvi is an experienced academician and mathematical researcher with over 15 years of higher education and industry experience, specializing in Topology, Graph Theory, and Computer Applications. She currently serves as Assistant Professor on Examination Support System at Firebird Institute of Research in Management, combining deep domain expertise in mathematical modeling with extensive academic leadership roles, including IQAC and Exam Cell contributions.

A published researcher with multiple Web of Science and SCOPUS-indexed journal papers, her work focuses on Hexa Topological Spaces and their real-world applications in medical diagnostics, human circulatory modeling, and maternal care. Fluent in Tamil, English, and Hindi, she seamlessly integrates analytical rigor, technology, and contemporary pedagogy into higher education.

CAREER PROFILE

Assistant Professor – Examination Support System – Firebird Institute of Research in Management,

Coimbatore, Tamil Nadu • Dec 2025 – Present

- Contribute to the planning, coordination, and administration of Examination and Evaluation processes, ensuring accuracy, transparency, and academic standards.
- Support Outcome-Based Education (OBE) through CO–PO mapping, assessment mapping, attainment analysis, and outcome-based academic evaluation in alignment with NBA requirements.
- Assist in the preparation and analysis of CO–PO attainment reports, assessment records, and academic documentation required for quality assurance and NBA accreditation.
- Support the Examination Cell in examination planning, scheduling, assessment coordination, result analysis, and ensuring the integrity of evaluation processes.
- Contribute to continuous improvement in teaching, learning, assessment, and academic quality through outcome attainment reviews and performance analysis.

Assistant Professor | LNV College of Arts and Science

Coimbatore, Tamil Nadu • May 2024 – Dec 2025

- Taught undergraduate and postgraduate mathematics courses, delivering lectures and curated reference materials.
- Conducted student performance evaluations through targeted assignments, continuous internal tests, and academic counseling.

Assistant Professor | Karpagam Academy of Higher Education

Coimbatore, Tamil Nadu • Dec 2023 – May 2024

- Engaged in core subject delivery and academic assessment within the mathematics department.

Assistant Professor | Angappa College of Arts and Science

Coimbatore, Tamil Nadu • Dec 2012 – Nov 2023

- Served an 11-year tenure delivering comprehensive mathematics curriculum and organizing academic workshops and expert guest lectures.
- Key institutional contributor across major administrative bodies:
 - - Exam Cell Member (2016–2023): Managed end-to-end examination processes.
 - - IQAC Member (2020–2022): Maintained quality assurance and institutional academic standards.
 - - Learning Support Center (LSC) Member (2021–2023): Led key student learning initiatives.

Assistant Professor | LNV College of Arts and Science

Coimbatore, Tamil Nadu • Jun 2011 – Dec 2012

- Handled subject lectures and served as a core Exam Cell Member (2011–2012).

Senior Processing Executive | Welkyn IT Solutions

Coimbatore, Tamil Nadu • May 2010 – May 2011

- Managed web publishing and institutional archive maintenance, introducing operational process improvements.

Processing Executive | KR Tech Park

Coimbatore, Tamil Nadu • May 2009 – Apr 2010

- Documented XML-related processes and workflows to boost efficiency, while assisting electronic product lifecycle tracking from launch to end.

RESEARCH & SCHOLARLY PUBLICATIONS

Journal Publications & Web of Science / SCOPUS Records

- Application of Wh Closed sets in hexa Topological Spaces and Neutrosophic Hexa Topological Spaces for Multi-Criteria Medical Diagnosis, Journal of Advanced Research (2026), E-ISSN: 0975-4415 [SCOPUS].
- A New form of N-Hexa Topological Approach to Reducing Maternal Anxiety After Delivery, Journal of Advanced Research (2025), ISSN: 0315-3681, Vol. 122(2) [SCOPUS].
- Modeling Human Heart Blood Circulation Using Hexa Graph Topology, Journal of Advanced Research (2025), ISSN: 0315-3681, Vol. 122(1) [SCOPUS].
- Introduction to Wh closed sets in Hexa Topological spaces, International Journal of Creative Research Thoughts (IJCRT), ISSN: 2320-2882, Vol. 11, Issue 4.
- A Study on Hexa Topological Spaces, Indian Journal of Natural Sciences [Web of Science].

Conference Presentations & Invited Sessions

- Resource Person: Delivered webinar on 'Introduction to Aptitude and Logical Reasoning', KSG College of Arts and Science (Sep 14, 2023).
- Paper Presenter: 'A Study on different types of Operators in Hexa Topological Spaces', 2nd Global Conference on Emerging Trends in R&D, K.P.S Science Academy, M.P. (Jun 17–18, 2023).
- Paper Presenter: 'Wh continuous functions in Hexa Topological spaces', International Conference NECIVCPBSH-2023, Narasaraopeta Engineering College, A.P. (May 26–27, 2023).
- Paper Presenter: 'A Study on Hexa Topology', International Conference, Nirmala College for Women, Coimbatore (Feb 2–3, 2023).

EDUCATION

Ph.D. in Mathematics (Topology) — Nirmala College for Women, Coimbatore (*Pursuing*)

M.Sc. Mathematics (Graph Theory) — Pioneer College of Arts and Science, Coimbatore (*2016 – 2018 | 71%*)

Master of Computer Applications (MCA - .NET) — Coimbatore Institute of Management & Technology
(*2006 – 2009 | 71%*)

B.Sc. Mathematics with Computer Applications — Sree Jayendra Saraswathi College of Arts and Science
(*2003 – 2006 | 59%*)

AREAS OF EXPERTISE

- Topology & Hexa Topological Spaces Research
- Graph Theory & Mathematical Modeling
- Curriculum Delivery & Higher Education Pedagogy
- Quality Assurance (IQAC) & Examination Cell Management
- Student Mentorship & Academic Workshop Leadership
- Languages: Tamil (Read/Write/Speak), English (Read/Write/Speak), Hindi (Read/Write)
- Technical Skills: Senior Grade Typewriting in English, .NET Programming