

# Dr. Seema Varghese

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## PROFESSIONAL EXPERIENCE – TEACHING (Completed 20 years):

- Associate Professor in Mathematics, Govt Engineering College (since 2<sup>nd</sup> June 2018).
- Assistant Professor in Mathematics, Govt. Engineering College (7<sup>th</sup> June 2011 to 1<sup>st</sup> June 2018)
- Assistant Professor in Mathematics, Panampilly Memorial Govt College, Chalakudy (2<sup>nd</sup> Sept 2005 to 6<sup>th</sup> June 2011)
- Lecturer in Mathematics, Govt. Polytechnic College, Kothamangalam (2<sup>nd</sup> June 2004 to 1<sup>st</sup> Sept 2005)
- Lecturer in Mathematics, College of Engineering (CAPE), Kidangoor (01<sup>st</sup> Jan 2003 to 1<sup>st</sup> June 2004)
- Lecturer in Mathematics, Toc-H Institute of Science and Technology, Arakkunnam (23<sup>rd</sup> Sept 2002 to 31<sup>st</sup> Dec 2002)
- Ad hoc Lecturer in Mathematics, Cochin University of Science and Technology, Kochi (3<sup>rd</sup> Feb 2001 to 22<sup>nd</sup> Sept 2002).

## PROFESSIONAL EXPERIENCE – RESEARCH

### Research Guide

- Govt. Engineering College, Thrissur affiliated to APJ Abdul Kalam Technological University
- Research Guidance: Ongoing – 2

## DETAILS OF RESEARCH ACTIVITIES

**Area:** Graph Theory

**Title of Ph. D Thesis:**

STUDIES ON SOME GENERALIZATIONS OF LINE GRAPH AND THE POWER DOMINATION PROBLEM IN GRAPHS

from Cochin University of Science and Technology, under the guidance of Prof. A. Vijayakumar.

## PUBLICATIONS

- Non-Existence of Forbidden subgraph characterization of H-line graphs, *Seema Varghese*, CREAT. MATH. INFORM., Volume 32 (2023), No. 1, Pages 121 – 125.
- Power domination in Mycielskian of spiders, *Seema Varghese, Seethu Varghese, A. Vijayakumar*, AKCE International Journal of Graphs and Combinatorics, June 2022, DOI: 10.1080/09728600.2022.208290
- On Cycle graphs, *Seema Varghese, S. V. Gervacio, A. Vijayakumar*, Asian-European Journal of Mathematics, <https://doi.org/10.1142/S1793557123500365>
- Some results on star-line graphs, *Seema Varghese*, CREAT. MATH. INFORM., Volume 31 (2022), No. 2, Pages 267 - 271
- On the Planarity of iterated star line graphs, *Seema Varghese, A. Vijayakumar*, AKCE, Int. J. Graphs Comb.,9, No.1(2012)
- Power Domination in honeycomb networks, *D. Ferrero, Seema Varghese, A. Vijayakumar*, Journal of Discrete Mathematical Sciences and Cryptography, Vol 14, (2011), No.6, pp521-529

## CONFERENCES

- Power domination in some classes of graphs, EuroComb'11, 2011
- Power domination in triangular grids, ICRTGC-2010
- On H-line graphs, IMS Annual Conference 2009
- Some results on cycle graphs, NSADM-2008

## INVITED TALKS

- Power domination and its Variants, IWVGD 2022, Bharata Mata College, Thrikkakara.

## POSITIONS HELD

- State Public Information Officer (RTI), Govt Engg. College, Thrissur during 2016-2017
- In charge of EDUSAT, Panampilly Memorial Govt. College, Chalakudy during 2006-2009

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