Detailed CV

Name	**Dr. CHANDRU HEGDE**
Educational Qualification	M.Sc., Ph.D.
Designation	Assistant Professor

Address for Correspondence: Department of Mathematics
Mangalore University, Mangalagangothri - 574199

E-mail: chandrugh@gmail.com, chandrugh@mangaloreuniversity.ac.in
Phone: +91 9900815699

Research Areas   Discrete Mathematics, Graph Theory, Optimization Techniques.

Professional Teaching Experience: **13 Years**

1. Working as Assistant professor and Chairman, Department of Mathematics, Mangalore University.

2. Worked as "Asst. Professor" and Chairman in Department of Mathematics Karnataka State Open University, Mysore from December 2012 to December 2013.

3. Worked as "Asst. Professor" from August 2010 to December 2012 in PES Institute of Technology, Bangalore

4. Worked as "Lecturer" from Jul-2007 to August 2010 in Srinivas Institute of Technology, Mangalore.

5. Worked as "Lecturer" from April-2007 to Jul-2007 in 'T.I.M.E', Mangalore.

6. Worked as "Lecturer" from Jan-2007 to April-2007 in "Poornaprajna Pre – University College, Udupi.

7. Worked as "Lecturer" from May-2006 to Jan-2007 in "Vidyaniketan Pre – University College, Kaup.

Research Journal Publications : 11 (+ 3 in review)

International

1. Metric Dimension of Cellular Network, *International Journal of Mathematical Sciences and Engineering Applications* (*IJMSEA*), Volume

4, June 2010, pp. 133-148 (with Shreedhar K and B Sooryanarayana) ISSN -0973-9424.

2. Metric Dimension of Composition Product of Graphs, International journal of Computational Sciences and Mathematics, Volume 2, Number 1 (2010), pp. 147-160 (with B Sooryanarayana and Shanmukha B) ISSN 0974-3189.

3. Radio Number of Fourth Power of a Path, *International Journal Combinatorial Graph Theory and Applications,* Volume 3, No. 2, pp 105-127 (with P Devadas Rao and B Sooryanarayana) ISSN: 0973-7421.

4. Bi-metric Dimension of Graphs, *British Journal of Mathematics Computer Science,* Volume 4(18), 2014, pp. 2699-2714 (with A Raghavnedra and B Sooryanarayana) ISSN 2231-0851.

5. Rational Metric Dimension of Graphs, *Communications in Optimization Theory,* 2014 Article ID 8 (with A Raghavnedra and B Sooryanarayana) ISSN: 2051-2953.

6. Radio Number of kth Power of a Path, *Advanced Studies in Contemporary Mathematics*, Volume 28 (2018), No. 3, pp. 459 − 478 (with P Devadas Rao and B Sooryanarayana) ISSN:1229-3067.

7. Strong Alliances in Graph, *Communications in Combinatorics and Optimizations,* Volume 4 No. 1 (2019) pp. 1-13. (with B Sooryanarayana) ISSN: 2538-2128.

8. Dominating Functions and Cayley Graphs, International Journal of Applied Engineering Research (IJAER) Volume 14, N0. 11(2019) pp. 2553-2558 (With Raghavendra A and B. Sooryanarayana) ISSN : 0973-4562.

9. On the Upper Security Number of a Graph, *Communications in Optimization Theory*, Vol. 2020 (2020), Article ID 12, pp. 1-10. (With B. Sooryanarayana and Silvia Leera Sequeira) ISSN: 2051-2953.

10. Accurate Alliances in Graphs, *Journal of Advanced Research in Dynamical and Control Systems*, Volume 12, Issue 4 (2020) p.p 203-215. (With B. Sooryanarayana and Silvia Leera Sequeira) ISSN: 1943-023X.

11. Cluster Alliances in Graphs, *Arab Journal of Mathematical Sciences,*(Communicated, Under review).

12. *k*-Strong Defensive Alliances in Graphs, *Acta Universitatis Sapientiae, Mathematica* (Under review).

13. Neighborhood alliance in join of a graph with *K*_1, *Journal of Mathematical and Computational Science* (Under review).

National

14. Metric Security Number of Wheel-like Graphs, *Proceedings of the National Conference on Recent Developments in Mathematics and their Applications* 2014, pp. 11-15 (ISBN 978-93-82694-19-9).

Papers / poster presentations in Conferences / Seminars / Symposia (list)

International

1. "*Bounds on Dominating Security Number of Grid-Like Graphs*" in the *International Conference* on "*Emerging Trends in Fluid Mechanics and Graph Theory*", held at Christ University, Bangalore, 16-18 August 2012.

2. *Generalized Secure Sets in Graphs*" International conference on Discrete Mathematics and Applications (ICDMA2018) held at MS University Tirunelveli, Tamil Nadu INDIA during 18-21 January 2018.

3. *"On Generalized Distance Alliances in Graphs"* International conference in Mathematics and Applications (ICMA-MU 2018) held at **Bangkok, Thailand,** organized by Center for Excellence in Mathematics, *Mahidhol University* Bangkok, during 16-18 December 2018.

4. "*Resolving Defensive Alliances in Graphs*" International Conference on Number Theory and Graph Theory, held at University of Mysore, Karnataka, India during June 27-29, 2019.

National

5. *"Cache Number in Graphs"* in the National conference NCDMASS, held at Govinda Das College Suratkal, Karnataka from Feb 26-28, 2009

6. *"On Metric Dimension of Generalized Corona Product of Graphs"* in the National Conference "Distance in Graphs", held at Poornaprajna College Udupi, Karnataka, from Oct 3-6, 2010.

7. *"Optimization of Radio Channel Assignment for Pn4"* in the National Conference "Computational Control Systems and Optimization (CCSO 2011)", held at Dr. Abmedkar Institute of Technology Bangalore, Karnataka on 12, 13 May 2011.

8. *"Dominating Secure Sets in Graphs"* in the National Conference "Applications of Discrete Mathematics in Mathematics and Computer Science", held at Maharani's Science College, Bangalore, Karnataka on 13, 14 March 2012.

9. *"On Dominating Security Number in Graphs"* in the National Conference "Eighth Annual Conference of ADMA", held at VVV College, Virudhu Nagar, Tamil Nadu from 08-10 June 2012.

10. *"Dominating Security Number of Power Graphs"* in the National Seminar on "Graph Theory and its Applications", held at St. Aloysius College, Mangalore, Karnataka, from 03-05 January 2013.

11. *"Resolving secure sets in graphs", National conference on "Graph Coloring and applications" at Dr. Abmedkar Institute of Technology Bangalore, Karnataka on July 27-28, 2013.*

12. *"On Metric security number of graphs", National Seminar on "Graph Theory and its Applications", held at St. Aloysius College, Mangalore, Karnataka, from 18-19 January 2014.*

13. *"Metric security number of wheel-like graphs" National Conference on Recent Developments in Mathematics and their Applications (NCRDMA 2014) held at Tumkur University, Tumkur, from 17-18 October 2014.*

14. *"Cluster Defensive Alliances in Some Standard Graphical Networks" National Conference on Graph Theory and Discrete Mathematics-2018, held at Mangalore University Mangalagangothri, during 05-06 February 2018.*

Invited / plenary talks/ Special Lectures delivered: **14**

1. Delivered an Invited Talk on *"Structure Theorem for Finitely Generated Abelian Groups and Applications"* in the National Conference on Recent Advances in Mathematical Sciences and Applications held at Tumkur University Tumkur during 01/12/2018 to 02/12/2018.

2. Delivered an Invited Talk on *"How to Prepare a Research Paper and Beamer Presentations Using LaTeX"* in One Day National Level Workshop on Learn to Prepare a Research Paper and Power Point Presentations in LaTeX", held at Global College of Engineering and Technology Kadapa Andhra Pradesh on 25/08/2018.

3. Delivered an Invited Talk on *"Finite Groups and Applications"* in the National Seminar on Contemporary Developments in Applied Mathematics held at Auxilium College of Arts and Science, Regunathapuram, Pudukottai, Tamil-Nadu during 14-15 September 2018.

4. Delivered a special lecture on "*How to face the Challenges in Competitive Exams*", for M.Sc. Mathematics students at Govt. Women's First Grade College, Ajjarakadu, Udupi on 25th February 2015.

5. Delivered a special lecture series of 10 hours on "Mathematical Modelling" for M.Sc. Mathematics students at Karnataka State Open University, Mukthagangothri, Mysore on 14, 15, March 2015.

6. Delivered a special lecture on "Opportunities after B.Sc. and How to grab it", for B.Sc. students at S.D.M. College, Ujire Dakshina Kannada, on 31st July 2016.

7. Conducted 4 hours training session on preparation for NET and KSET examinations for the M.Sc. students at St. Philomena College Puttur Dakshina Kannada, on 16th October 2015.

8. Delivered a special lecture series of 10 hours on "Mathematical Modelling" for M.Sc. Mathematics students at Karnataka State Open University, Mukthagangothri Mysore, on 22, 23, 24 April 2016.

9. Delivered Special Lecture in a workshop on "Latex and its Applications" as a resource person in Poornaprajna College Udupi on 20.02.2017.

10. Delivered Three Hours Special Lecture on Problem solving Techniques for Comparative Exams like NET/SLET in Mathematical Sciences at Kuvempu University, Shankaraghatta, Shivamogga on 13.04.2017

11. Delivered a special lecture on "Some Famous Problems in Mathematics" in the celebration of National Mathematics day at S.D.M. College, Ujire Dakshina Kannada, on 22.12.2017.

12. Delivered Special talk on "Graph Theory and Applications" to Science Undergraduate students of Govt. First Grade College and PG center Barkur, Udupi on 16.03.2018.

13. Delivered Special talk on "Linear Algebra – Structure Theorem" to M.Sc. Mathematics students of Govt. First Grade College and PG center Barkur, Udupi on 16.03.2018.

14. Delivered a guest lecture on "Applications of Groups in Combinatorics" to M.Sc. Mathematics students at St. Aloysius College Mangalore on 25.09.2018.

Impact of publications in terms of

h-index : 02

Number of Citation:11

Conferences / Seminars / Workshops / Symposia organized: **04**

1. Joint Secretary, for organizing "National Conference on Recent Trends in Graph Theory and Applications (NCRTGTA 2015), held at Mangalore University, Mangalore from 06-07 February 2015.

2. Member of Organizing Committee "Four Day Workshop on NET/ KSET/GATE and other Competitive Examinations in Mathematical Sciences" held at Department of Mathematics Mangalore University, Mangalore from 10-13 March 2017.

3. Member of Organizing Committee One day special lecture series on "Recent Developments in Modeling and Applications" held at Department of Mathematics, Mangalore University, Mangalagangothri, on 5th December 2017.

4. Joint Secretary, for organizing National Conference on Graph Theory and Discrete Mathematics-2018, held at Mangalore University Mangalagangothri, during 05-06 February 2018.

Memberships of Professional Bodies:

1. Life member of "Academy of Discrete Mathematics and Applications (ADMA)

2. Life member of "Indian Society for Technical Education"(ISTE).

Memberships of Academic bodies:

1. Member of BOS in Mathematics (PG), Mangalore University, (from 2018)

2. Member of BOS in Mathematics (PG), Karnataka State Open University, Mysore (from 2014).

3. Member of BOS in Mathematics (PG), St. Aloysius College, Mangalore (from 2016)

4. Mangalore University Nominated BOS in Mathematics (UG), for SDM College (Autonomous), Ujire (from 2017).

Computer Qualifications:

Operating systems : Windows, LINUX (Basics)

Languages   : C, C++, Shell Programming, Assembly Language (8086)

Back-end tools   : ORACLE.