



**Arya Vidyapeeth College**  
আর্য্য বিদ্যাপীঠ মহাবিদ্যালয়



## Personal profile

**Name of the Faculty: Dr. Chanchal Boruah**

**Designation: Assistant Professor**

Personal Date of Birth: 04-11-1989

Information Gender: Male

Nationality: Indian

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Date of joining the present service: 01-06-2016

Academic MSc, Ph.D.

**Qualification**

Teaching In UG level: 08 Years 03 months

Experience In PG level: 04 Years 03 months



Date of obtaining Ph.D. degree: 09/09/2021, Dibrugarh University

Title of Ph.D. Thesis: A Graph Theoretic Approach for Solving Some Problems of Electrical Circuits.

Research experience      Length of research experience: 08 Years  
Specialization (Area of interest): Graph Theory

Publications      **No. Of Books authored: 03**

- i) “Degree Mathematics Real Analysis, 3<sup>rd</sup> Sem, GE-3”, Unika Prakashan, 2021, ISBN: 978-81-948607-7-8.
- ii) “Degree Mathematics Real Analysis”. Unika Prakashan, 2020; ISBN: 978-81-944823-7-6
- iii) “Degree Mathematics Calculus(C 1.1)” Unika Prakashan, 2020.ISBN: 978-81-948607-3-0

**No. Of Research paper published: 08**

**Published Papers:**

- i) Boruah Chanchal, Gogoi Krishna, Chutia Chandra. ‘Analysis of Some Electrical Circuits with the Help of Graph Theory Using Network Equilibrium Equations’, International Journal of Innovative Research in Science, Engineering and Technology(IJIRSET),Vol. 6, Issue 1, January, 2017. ISSN (Online): 2319-8753, ISSN(Print): 2347-6710.
- ii) Boruah Chanchal, Chutia Chandra. ‘Formulation of a Graph Theoretic Model to Find Currents in Electrical Circuits’, Journal of Ultra Scientist of Physical Sciences-B, Vol. 32(2), 4-15 (2020), ISSN (Online): 2319-8052, ISSN (Print): 2231-3478.
- iii) Boruah Chanchal, Chutia Chandra. ‘Study of an Electrical Circuit with Unknown Resistances and Voltages using Graph Theoretic Approach and Superposition Theorem’, International Journal of Innovative Research in Science, Engineering and Technology(IJIRSET), Vol. 9, Issue 8, August 2020. ISSN (Online): 2319-8753, ISSN (Print): 2320-6710
- iv) Boruah Chanchal, Chutia Chandra. ‘Graph Theoretic analysis of an Electrical Circuit With Unknown Resistances And Voltages’, International Journal of Engineering, Science and Mathematics(IJESM), Vol. 9, Issue 8, August 2020, ISSN: 2320-0294.

v) Boruah Chanchal, Chutia Chandra. 'Analysis of Currents in an Electrical Circuit Using Matrix Method' , International Journal of Advances in Engineering and Management(IJAEM), Volume 2, Issue 5, pp: 57-63 , ISSN: 2395-5252, 2020.

vi) Boruah Chanchal, Chutia Chandra. 'Finding Current of an Electrical Circuit Using Graph Theoretic Approach and Norton's Theorem', International Journal of Engineering, Science and Mathematics(IJESM), Vol. 9, Issue 11, November 2020, ISSN: 2320-0294.

vii) Boruah Chanchal, Chutia Chandra. 'Graph Theoretic Approach to Nodal Analysis of Electrical Circuits', International Journal of Innovative Research in Science, Engineering and Technology(IJRSET), Vol. 9, Issue 11, November, 2020, ISSN (Online): 2319-8753, ISSN(Print): 2320-6710.

viii) Boruah Chanchal, Chutia Chandra. 'Study of an Electrical Circuit using Nodal Analysis and Graph Theoretic Approach', Mathematical Forum, Vol 28, 2020, ISSN-0972-9852

Papers  
presented in  
Seminar/  
Conference

i) Presented a paper entitled "GRAPH THEORETIC ANALYSIS OF AN ELECTRICAL CIRCUIT WITH UNKNOWN VOLTAGE AND RESISTANCE " in 3rd National Conference on Recent Advances in Science and Technology (NCRAST 2020) organized by Assam Science and Technology University Guwahati, 17-19 August, 2020.

ii) Presented a paper entitled "STUDY OF AN ELECTRICAL CIRCUIT USING NODAL ANALYSIS AND GRAPH THEORETIC APPROACH" in International Conference on Mathematical Modelling in Applied Sciences (ICMMAS2020) organised by Dept. of Mathematics, Dibrugarh University, Assam, 28-30 June, 2020.

iii) Presented a paper entitled "Study of Some Network Theorems Using Graph Theory" in 2nd National Conference on Recent Advances in Science and Technology (NCRAST 2019) organized by Assam Science and Technology University at NEDfi Convention Centre, Guwahati, May 15-17, 2019

iv) Presented a paper entitled "Analysis of Current and Voltage of electrical circuits using graph theoretic approach" in 26th International conference organized by Forum for Interdisciplinary Mathematics (FIM) on Interdisciplinary Mathematics, Statistics and Computational Techniques at Kitakyushu City, Fukouka, Japan on August 25—28, 2017.

v) Presented a paper entitled “Analysis of some electrical circuits with the help of graph theory using network equilibrium equations” in Silver Jubilee International Conference organized by Forum for Interdisciplinary Mathematics (FIM) on Interdisciplinary Mathematics, Statistics and Computational Techniques at Manipal University, Jaipur on December 22-24, 2016.

vi) Presented a paper entitled “Graph theoretic approach to electrical circuit analysis” in National Seminar organized by Cotton College State University on October 22—24, 2016.

vii) Presented a paper entitled “Application of graph theory in studying some properties of electrical circuits” in UGC sponsored National Seminar on recent trends in application of mathematical modeling to problems in natural and social science organized by Department of Mathematics , Dhakuakhana College , February 4-5,2016.

viii) Presented a paper entitled “Study of Some Electrical Circuits with the Help of Graph theory” in UGC sponsored National Seminar on Advances in Mathematical Science organized by Department of Mathematics, Gauhati University on 22nd December, 2015.

Membership  
in reputed  
national/  
international  
agency

- i) Life Member of Forum For Interdisciplinary Mathematics (FIM).
- ii) Life Member of Physics Academy Of North East (PANE).
- iii) Member of Assam College Teachers’ Association.

Corporate

Member of IQAC, Arya Vidyapeeth College since 2018.

Social responsibility