

## Curriculum Vitae

**Surajit Borkotokey**

---

Department of Mathematics  
Dibrugarh University  
Dibrugarh, Assam-786004

Ph. 091-9954430677  
Email: sborkotokey@dibru.ac.in

---

**FIELDS OF INTEREST:** Cooperative Game Theory, Networks, Fuzzy Sets, Aggregation.

**EDUCATION:**                   **Ph.D., Mathematics,** Dibrugarh University  
   **M. Phil., Mathematics,** Delhi University  
   **M.Sc., Mathematics,** Delhi University

### **PROFESSIONAL EXPERIENCE:**

**Professor,** Department of Mathematics, Dibrugarh University since 2014.  
**Associate Professor,** Department of Mathematics, Dibrugarh University, 2008-2014  
**Assistant Professor,** Department of Mathematics, Dibrugarh University, 1999-2008  
**Indo-US Fellow** at Louisiana State University, USA (2011-12)  
**Visiting Faculty** at Beijing Institute of Technology, China (2014, 2016)  
**Visiting Faculty** at Slovak University of Technology, Bratislava, Slovakia (2017)

### **EDITORIAL ACTIVITY:**

Editor, Game Theory and Networks: New Perspectives and Directions, Springer Nature, India.  
(Upcoming Proceedings of the International Conference on Game Theory and Networks, 2018-2019.)  
Associate Editor, EduTech, Journal of Education and Technology.  
Guest Editor, Special Issue of Studies in Microeconomics, SAGE (2015).  
Chief Editor, Mathematical Forum (2010-2012).  
Member, Editorial Board, Journal of Assam Academy of Mathematics, India.

### **ADMINISTRATIVE EXPERIENCES/SERVICES:**

Head, Department of Mathematics, Dibrugarh University, 2017-2020.  
Chairperson, Centre for Computer Science and Applications, Dibrugarh University, 2015-2019.  
Member, Academic Council, Dibrugarh University  
Member, Faculty Board, Faculty of Science and Engineering, Dibrugarh University.  
Member (VC's Nominee), Governing Body, Moran Mahila Mahavidyalaya, Moran, Assam.  
Member (VC's Nominee), Governing Body, Silapathar Science College, Silapathar, Assam.  
Member, Academic Council, Lakhimpur Autonomous College (2018-2020)

## JOURNAL PAPERS: (From Recent)

### (a) Game Theory and Networks:

- (i) **Borkotokey, S.**, Choudhury, D., Gogoi, L., Kumar, R., Group contributions in TU-games: A class of k-lateral Shapley values, *European Journal of Operational Research* (2020) 286(2) 637-648, Elsevier. DOI: [10.1016/j.ejor.2020.03.054](https://doi.org/10.1016/j.ejor.2020.03.054)
- (ii) Choudhury, D., **Borkotokey, S.**, Kumar, R., Sarangi, S. (2020). The Egalitarian Shapley value: a generalization based on coalition sizes. *Annals of Operations Research*, Springer. DOI: <https://doi.org/10.1007/s10479-020-03675-9>
- (iii) **Borkotokey, S.**, Gogoi, L., Choudhury, D, Kumar, R., (2020) Solidarity induced by Group Contributions: The  $MI^k$ -value for Transferable Utility Games, *Operational research*, Springer DOI: [10.1007/s12351-020-00584-4](https://doi.org/10.1007/s12351-020-00584-4)
- (iv) Zou, Z., Zhang, Q., **Borkotokey, S.**, & Yu, X. (2020). The extended Shapley value for generalized cooperative games under precedence constraints. *Operational Research*, 20(2), 899–925, Springer. DOI: <https://doi.org/10.1007/s12351-017-0341-6>
- (v) Singh, Tiken M. and **Borkotokey, S.** (2019) An Algorithm for Iterated Game to Handle Self-Obsessed Behavior in a Noisy Social Communication Network, *International Journal of Engineering Research and Technology*, 12 (12) 2698-2708.
- (vi) **Borkotokey, S.**, Hazarika, P. & Mesiar, R. (2019) Cooperative games with multiple attributes, *International Journal of General Systems*, Taylor and Francis, DOI: [10.1080/03081079.2019.1659792](https://doi.org/10.1080/03081079.2019.1659792)
- (vii) **Borkotokey, S.**, Gogoi, L., Mukherjee, D. (2018) Bi-cooperative network games: A link based allocation rule, *International Journal of Economic Theory* 14 (2), 103-128, Wiley Blackwell. DOI: <https://doi.org/10.1111/ijet.12148>
- (viii) Hazarika, P., **Borkotokey, S.**, Mesiar R. (2017), Bi-cooperative games in Bipolar Fuzzy Settings, *International Journal of General Systems*, Taylor and Francis. DOI: [10.1080/03081079.2017.1388800](https://doi.org/10.1080/03081079.2017.1388800).
- (ix) Chunsheng Cui, Zhongwei Feng, Chunqiao Tan, **Borkotokey, S.** (2019) Loss Aversion Equilibrium of Bimatrix Games with Symmetric Triangular Fuzzy Payoffs, *International Journal of Fuzzy Systems*, Springer. DOI: <https://doi.org/10.1007/s40815-019-00611-3>.
- (x) **Borkotokey, S.**, Kumar, R., Sarangi, S. (2015), A solution concept for network games: The role of multilateral interactions, *European Journal of Operational Research*, 243, 3, 912-920, Elsevier. DOI: [10.1016/j.ejor.2014.12.027](https://doi.org/10.1016/j.ejor.2014.12.027)
- (xi) Biswakarma, R., **Borkotokey, S.**, Mesiar, R. (2017) A simplified expression of Share Functions for Cooperative Games with Fuzzy Coalitions, *Journal of Tatra Mountains Mathematics Publications* 69, 1-6, De Gruyter. DOI: <https://doi.org/10.1515/tmmp-2017-0011>
- (xii) **Borkotokey, S.**, Hazarika, P., Mesiar R. (2015) Fuzzy Bi-cooperative Games in Multilinear Extension Form, *Fuzzy Sets and Systems*, 259, 44-55, Elsevier. DOI: [10.1016/j.fss.2014.08.003](https://doi.org/10.1016/j.fss.2014.08.003)
- (xiii) **Borkotokey, S.**, Hazarika, P., Mesiar R. (2015) A Multilinear Extension of a Class of Fuzzy Bi-cooperative Games, *Journal of Intelligent and Fuzzy Systems*, 28, 2, IOS Press. DOI: [10.3233/IFS-141349](https://doi.org/10.3233/IFS-141349)
- (xiv) **Borkotokey, S.**, Neog, R. (2014) Dynamic Resource Allocation in Fuzzy Coalitions : A Game Theoretic Model, *Fuzzy Optimization and Decision Making*, 13, 2, 211-230, Springer. DOI: [10.1007/s10700-013-9172-y](https://doi.org/10.1007/s10700-013-9172-y)
- (xv) **Borkotokey, S.**, Gogoi, L., & Sarangi, S. (2014). A Survey of Player-based and Link-based Allocation Rules for Network Games. *Studies in Microeconomics*, 2(1), 5–26. DOI: <https://doi.org/10.1177/2321022214522744>

- (xvi) **Borkotokey, S.**, & Mesiar, R. (2014). The Shapley value of cooperative games under fuzzy settings: A survey. *International Journal of General Systems*, 43(1), 75–95. Taylor and Francis. DOI: <https://doi.org/10.1080/03081079.2013.844695>
- (xvii) **Borkotokey, S.**, Neog, R. (2013) Role of satisfaction in resource accumulation and profit allocation: A fuzzy game theoretic model, *Fuzzy Systems (FUZZ)*, 2013 IEEE International Conference on vol.1, no.8, pp. 7-10 July 2013, doi: 10.1109/FUZZ-IEEE. 2013.6622379. DOI: <http://ieeexplore.ieee.org/stamp/>
- (xviii) **Borkotokey, S.** Sarmah P. (2012) Bi-cooperative games with fuzzy bi-coalitions, *Fuzzy Sets and Systems*. 198 (1) 46-58, Elsevier. DOI: [10.1016/j.fss.2011.10.006](https://doi.org/10.1016/j.fss.2011.10.006)
- (xix) **Borkotokey, S.**, Neog, R. (2012) Allocating profit among rational players in a fuzzy coalition: A game theoretic model, *Group Decision and Negotiation*, 21 (4) 439-459, Springer. DOI: [10.1007/s10726-010-9217-3](https://doi.org/10.1007/s10726-010-9217-3)
- (xx) **Borkotokey, S.** (2008) Cooperative Games with Fuzzy Coalitions and Fuzzy Characteristic Functions, *Fuzzy Sets and Systems*, 159 (2) 138– 151, Elsevier. DOI: [10.1016/j.fss.2007.07.007](https://doi.org/10.1016/j.fss.2007.07.007)

## (b) Aggregation and Non-Additive Measures

- (i) Jin, L. Mesiar, R., Kalina, M., Spirkova, J., **Borkotokey, S.** (2019) New Transformations of Aggregation Functions Based on Monotone Systems of Functions, *International Journal of Approximate Reasoning*, DOI: [10.1016/j.ijar.2019.12.004](https://doi.org/10.1016/j.ijar.2019.12.004).
- (ii) Jin, L. Kalina, M. Mesiar, R. **Borkotokey, S.** Characterizations of the possibility-probability transformations and some applications. *Information Sciences*, vol. 477, p. 281--290. DOI: <https://doi.org/10.1016/j.ins.2018.10.060>
- (iii) Wang, Z., Jin, L., Yager, R., **Borkotokey, S.**, 2018, Ordered Weighted Sum in infinite sequences environment with applications, November 2018, *Journal of Intelligent and Fuzzy Systems* DOI: [10.3233/JIFS-181291](https://doi.org/10.3233/JIFS-181291)
- (iv) **Borkotokey, S.**, Komorníková, M., Li, J., & Mesiar, R. (2018). Aggregation functions, similarity and fuzzy measures. In *Advances in Intelligent Systems and Computing*, 581, 223–228. Springer. DOI: [https://doi.org/10.1007/978-3-319-59306-7\\_23](https://doi.org/10.1007/978-3-319-59306-7_23)
- (v) Mesiar, R., **Borkotokey, S.**, Jin, L., & Kalina, M. (2018). Aggregation under Uncertainty. *IEEE Transactions on Fuzzy Systems*, 26(4), 2475–2478. DOI: <https://doi.org/10.1109/TFUZZ.2017.2756828>.
- (vi) Jin, L. S., Mesiar, R., **Borkotokey, S.**, & Kalina, M. (2018). Certainty aggregation and the certainty fuzzy measures. *International Journal of Intelligent Systems*, 33(4),759–770. DOI: <https://doi.org/10.1002/int.21961>
- (vii) Jin, L., Kalina, M., Mesiar, R., & **Borkotokey, S.** (2018). Discrete Choquet Integrals for Riemann Integrable Inputs with Some Applications. *IEEE Transactions on Fuzzy Systems*, 26(5), 3164–3169. DOI: <https://doi.org/10.1109/TFUZZ.2018.2792458>
- (viii) **Borkotokey, S.**, Mesiar, R., Li, J., Kouchakinejad, F., & Šipošová, A. (2018). Event-based transformations of capacities and invariance. *Soft Computing*, 22(19),6291–6297. DOI: <https://doi.org/10.1007/s00500-017-2970-3>
- (ix) Mesiar, R., **Borkotokey, S.**, Jin, L. S., & Kalina, M. (2018). Aggregation functions and capacities. *Fuzzy Sets and Systems*, 346, 138–146. Elsevier. DOI: <https://doi.org/10.1016/j.fss.2017.08.007>
- (x) Mesiar, R., **Borkotokey, S.**, Jin, L., & Kalina, M. (2018). Aggregation under Uncertainty. *IEEE Transactions on Fuzzy Systems*, 26(4), 2475–2478. Elsevier. DOI: <https://doi.org/10.1109/TFUZZ.2017.2756828>
- (xi) Jin, L. S., Mesiar, R., Kalina, M., Špírková, J., & **Borkotokey, S.** (2019). Generalized phi-transformations of aggregation functions. *Fuzzy Sets and Systems*, 372, 124–141. Elsevier. DOI: <https://doi.org/10.1016/j.fss.2018.09.016>

### (c) Multicriteria Decision Making

- (i) Kakati, P., **Borkotokey, S.**, Rahman, S., & Davvaz, B. (2020). Interval neutrosophic hesitant fuzzy Einstein Choquet integral operator for multicriteria decision making. *Artificial Intelligence Review*, 53(3), 2171–2206. Springer. DOI: <https://doi.org/10.1007/s10462-019-09730-7>
- (ii) Kakati, P., **Borkotokey, S.**, (2019): Generalized interval-valued intuitionistic fuzzy Hamacher generalized Shapley Choquet integral operators for multicriteria decision making, *Iranian Journal of Fuzzy Systems*.
- (iii) Kakati, P., **Borkotokey, S.**, Mesiar, R., Rahman, S. (2018) *Journal of Intelligent and Fuzzy Systems*, IOS.

### (d) Miscellaneous

- (i) Baruah, N., Sarma, S. K., & **Borkotokey, S.** (2020). Evaluation of Content Compaction in Assamese Language. In *Procedia Computer Science* (Vol. 171, pp. 2275–2284). Elsevier. DOI: <https://doi.org/10.1016/j.procs.2020.04.246>
- (ii) Baruah, N., Sarma, S. K., & **Borkotokey, S.** (2019). A Novel Approach of Text Summarization using Assamese WordNet. In *2019 4th International Conference on Information Systems and Computer Networks, ISCON 2019* (pp. 305–310). Institute of Electrical and Electronics Engineers Inc. DOI: <https://doi.org/10.1109/ISCON47742.2019.9036285>
- (iii) Baruah, N., Sarma, S. K., & **Borkotokey, S.** (2019). Text summarization in indian languages: A critical review. In *2019 2nd International Conference on Advanced Computational and Communication Paradigms, ICACCP 2019*. Institute of Electrical and Electronics Engineers Inc. DOI: <https://doi.org/10.1109/ICACCP.2019.8882968>
- (iv) **Borkotokey, S.** (2009) Fuzzy Subspace of a Vector Space: A Topological Approach, *Int. J. of Fuzzy Mathematics*, 2 (17) 403-414.
- (v) **Borkotokey, S.** (2007) On Tensor Product of Fuzzy Submodules, *Int. J. of Fuzzy Mathematics*, 15 (2) 581-592.
- (vi) **Borkotokey, S.** (2006) RGamma-submodules in Fuzzy Setting, *Int. Review on Fuzzy Mathematics*, 1 (1) 33-46.
- (vii) **Borkotokey, S.**, Banerjee, B. (2003) Gamma-Semigroup in Fuzzy Setting, *Int. J. of Fuzzy Mathematics*, 11(4) 995-1003.

### BOOK CHAPTERS:

- (i) **Borkotokey, S.**, Gogoi, L., Kumar, R. (2019) Network Games: The Cooperative Approach. In: Chakrabarti A., Pichl L., Kaizoji T. (eds) *Network Theory and Agent-Based Modeling in Economics and Finance*. Springer, Singapore. DOI: [https://link.springer.com/chapter/10.1007/978-981-13-8319-9\\_21](https://link.springer.com/chapter/10.1007/978-981-13-8319-9_21)
- (ii) Singh, M. Tiken, **Borkotokey, S.**, (2019) Selfish Controlled Scheme in Opportunistic Mobile Communication Network, In *Recent Developments in Machine Learning and Data Analytics*, Editors: Kalita, J., Balas, V.E., Borah, S., Pradhan, R. (Eds.), Springer Singapore. DOI: [10.1007/978-981-13-1280-9](https://doi.org/10.1007/978-981-13-1280-9).
- (iii) Gogoi, L., **Borkotokey, S.**, Mukherjee, D., (2019) Multilateral Interactions and Isolation in Middlemen driven Network Games, In *Social Network Analytics*, 1st Edition, Computational Research Methods and Techniques, Eds. Nilanjan Dey, Samarjeet Borah, Rosalina Babo, Amira Ashour, Paperback ISBN: 9780128154588, Academic Press, Elsevier. DOI: [10.1016/B978-0-12-815458-8.00009-8](https://doi.org/10.1016/B978-0-12-815458-8.00009-8)

- (iv) Jin, L., Kalina, M., Mesiar, R., **Borkotokey, S.**, Špirková, J., (2019) Generalized phi-transformations and n-uniforms, 6th International Conference on Control, Decision and Information, 506-511, IEEE-Explorer.  
DOI: [10.1109/CoDIT.2019.8820657](https://doi.org/10.1109/CoDIT.2019.8820657)
- (v) **Borkotokey, S.**, Komorníková, A., Li, J., Mesiar, R. (2018) Aggregation Functions, Similarity and Fuzzy Measures. In: Torra V., Mesiar R., Baets B. (eds) Aggregation Functions in Theory and in Practice. AGOP 2017. Advances in Intelligent Systems and Computing, vol 581. Springer, Cham.  
DOI: [https://doi.org/10.1007/978-3-319-59306-7\\_23](https://doi.org/10.1007/978-3-319-59306-7_23)
- (vi) **Borkotokey, S.**, Li, J., Mesiar, R. (2017) Event-based transformations of capacities, Book Chapter, September 2017 DOI: 10.1007/978-3-319-67422-3\_4. In book: Modeling Decisions for Artificial Intelligence, pp.33-39, Springer.  
DOI: [https://doi.org/10.1007/978-3-319-67422-3\\_4](https://doi.org/10.1007/978-3-319-67422-3_4)
- (vii) **Borkotokey, S.**, Kumar, R., Sarangi, S. (2014) Bi-cooperative Games : Applications in Management and a Simple Solution, Book Chapter, Applications of Game Theory, Ed. R. K. Mishra, Shaheen, J. Raveendran, S. Deman, 51-65, Academic Foundation Pub.
- (viii) **Borkotokey, S.**, (2011) A Dynamic Solution concept to cooperative games with fuzzy coalitions, Book Article, Topics in Non-convex Optimization, Chapter 13, pp 215-229, Springer Ed. S.K. Mishra.  
**Borkotokey, S.** (2013) Recent Advances in Game Theory and its Applications to Networks, (Book Article) Chapter 7, Mathematical Sciences and their Applications: Recent Advances, Editor(s): Karabi Dutta Choudhury, Devajyoti Biswas, Sumit Saha, Narosa.

#### SUBMITTED/WORKING PAPERS/ WORKS IN PROGRESS:

- (i) **Borkotokey, S.**, Chakravarty, S., Gogoi, L., Gilles, R., Kumar, R., (2020) Probabilistic Network Games. (Submitted to Math Soc. Science).
- (ii) Singh, Tiken M., **Borkotokey, S.**, (2020) A Stable Payoff Allocation Protocol for Controlling the Selfishness and Managing the Power Consumption in Mobile Ad Hoc Networks.
- (iii) Singh, Tiken M., **Borkotokey, S.**, Ait Maalem Lahcen, R., Mohapatra, R. N. (2020) A Generic Scheme for Cyber Security in Resource Constraint Network Using Incomplete Information Game. (Submitted to Cybernetics and Systems).
- (iv) Singh, Tiken M., **Borkotokey, S.**, Kumar, R. (2020) An Online Auction Algorithm to Contain the Malicious Behavior in an Intermittent Mobile Ad Hoc Network.
- (v) Gowala, S., Goswami, M., **Borkotokey, S.** (2020) Coordination in Efforts: Shapley value distribution in an uncertain economic environment.

#### AWARDS, GRANTS, DISTINCTION AND FELLOWSHIPS

UKIERI Award for a Project on Bi-cooperative Network Games and its Applications to Networks for three years between Dr. Rajnish Kumar, Queen's University, Belfast and Prof. S. Borkotokey, Dibrugarh University. Total amount of 1,62,000 GBP.

NSP (National Scholarship Program) award from SAIA, Slovak Government for three months to work as a visiting faculty at Slovak University of Technology during January- March, 2017.  
UGC Major Research Project (2013-2016) on Cooperative Games and its Applications to Networks in crisp and fuzzy environments. Total Amount: Rs. 10.52 Lacs.

Indo-US Research Fellowship for doing research in Network Analysis at the Dept. of Economics, Louisiana State University, USA during 2011 awarded by the Indo-US Science and Technology Forum, India. Total Fellowship Amount: \$ 27000.

UGC Major Research Project on "A Study on cooperative games and its application to networks under crisp and fuzzy environment" (2012-2015) Total Fellowship Amount: Rs. 10.53 Lacs.

UGC Funded Project on Innovative Research “Biological Module Extraction: A Game Theoretic Approach” (2015) Total Fellowship Amount: Rs. 4.5 Lacs.

UGC sponsored Minor Research Project (2008-10) on “Cooperative Games with fuzzy coalitions and vague expectations”.

National award for Best Research Paper in Mathematical Science Section Presented in the Mathematical Science Section of “Indian Science Congress - 2002” held in Lucknow, India.

Travel Grant from NBHM for a visit to the University of Western Australia, Perth in 2009.

Travel Grant from DST to participate SAET 2013 at Paris, France.

Travel Grant from NBHM to participate IWGT 2014 at Sao Paulo, Brazil.

### **POST DOCTORAL ACTIVITIES:**

Department of Economics, Louisiana State University, Baton Rouge, LA, USA under the Indo-US Science and Technology Research Fellowship for 9 months during September, 2011 – May, 2012 on the project “Mathematical Modelling of Networks” .

### **REVIEW ACTIVITIES:**

European Journal of Operation Research, International Journal of Game Theory, Information Sciences, Fuzzy Sets and Systems, Kybernetika, Journal of Intelligent and Fuzzy Systems, Mathematical Methods of Operations Research, Iranian Journal of Fuzzy Mathematics, Review of Economic Design.

### **WORKSHOPS AND CONFERENCES:**

#### **(a) Organized:**

- International Workshop on Game Theory and Networks, 06-07 September 2019 under the aegis of UK-India Education and Research Initiatives (UKIERI), jointly funded by the British Council and University Grants Commission.
- International Workshop on Game Theory and Networks, 13-15 September 2018 under the aegis of UK-India Education and Research Initiatives (UKIERI), jointly funded by the British Council and University Grants Commission.
- International Conference on '**Network and Games**', from 27th – 29th April at Queen’s Management School, as the part of UK India Education and Research Initiative (UKIERI), jointly funded by the British Council and University Grants Commission.
- International Seminar on Game Theory and Its Applications to Social and Economic Networks, 10-12 December 2014, under the aegis of NBHM and Dibrugarh University.
- Joint Coordinator, A Five day workshop on Statistical Data Analysis organized by the Department of Mathematics and Statistics funded by ISI, Kolkata during 26-30 November 2013.
- Member, Core Committee, Game-Net Workshops in ISI-Kolkata 2013,2016,2017, IGIDR- Mumbai 2015, IIT-Ropar 2014.

#### **(b) Presented Paper:**

- “From Egalitarian to Marginal Values: The Role of Solidarity in TU Games” **International Conference on Mathematical Models in Applied Sciences**, Department of Mathematics, Dibrugarh University, India, 28-30 June 2020.
- “Group Interactions in TU games: The k-lateral value” **Joint Mathematical Meet of the American Mathematical Society**, Baltimore, USA, 16-19 January.

- “Game Theory and Networks” Department of Mathematics, University of Central Florida on 13/01/2019 at the Department of Economics, Virginia Tech, USA on 21/01/2019 and also at the LeMoyne College, Syracuse on 24/01/2019.
- “A new Solution to TU games: The Role of Solidarity”, **International Seminar in Economics and Finance**, 19-21 December 2018, Indian Institute of Management, Ahmedabad.
- “Bi-cooperative Network Games: A Solution Concept” International Conference on International Conference on '**Network and Games**', 27th – 29th April 2018, Queen’s Management School, UK.
- “Identifying Biological markers: A Bi-cooperative Game Theoretic Approach” **International Conference on Networks and Games**, 03-04 July 2017, ISI-Kolkata.
- “Middlemen in TU Games” **International Conference on Multilateral Economic Cooperation Strategy under One Belt One Road framework and Research Development in Game Theory**, June 17-19, 2016, Xi’an, China.
- “Role of Middleman in TU games” **International Symposium on Fundamentals of Games and Decision Making**, IGIDR- Mumbai, 12-14 March 2016.
- “Intermediary Values” **International Conference of Analysis and Applications**, BHU, India, 6-8 February 2016.
- “Middleman in Cooperative Games” **National Conference on Networks and Games**, IIT Ropar, India, 7-9 December 2015.
- “A New Solution to Cooperative Games : The Role of a Parasite Player” **International Conference of Recent Advances in Frontiers of Mathematics**, 27-29 March 2015, Gauhati University.
- “An Axiomatic Characterization of a Fixed and Flexible Network Allocation Rule” **IWGTS 2014**, 24-31 July 2014, Sao Paulo, Brazil.
- “Multilinear extension of Fuzzy Bi-cooperative Games” **International Seminar on Game Theory**, Beijing Institute of Technology, 4-5 July 2014.
- “Bi-cooperative Network Games” **International Seminar on Game Theory**, Beijing Institute of Technology, 4-5 July 2014.
- “An Interactive Allocation Rule for Networks” **International Seminar on Social and Economic Networks** 25/10/2013 to 27/10/2013, IIT, Jodhpur.
- “An Allocation Rule for Networks” **13th SAET Conference, Mines Paris Tech**, Paris, France, 22- 26 July 2013.
- “Role of Satisfaction in Resource Accumulations and Payoff Allocation : A Fuzzy Game Theoretic Model” Fuzz-IEEE 2013, **International Conference on Fuzzy Systems**, Hyderabad, 07-10 July 2013.
- “A Survey on the Shapley value for Cooperative Games under Fuzzy Environment” **NCPAM 2013**, Royal College of Engineering, Guwahati, India held during 09/05/2013- 10/05/2013.
- “A New Allocation Rule for Networks” **Research meet on Strategic Network Formation & Evolution** in ISI- Kolkata, during March 7 & 8, 2013. <http://www.isical.ac.in/~biru/>.
- “Potential in Bi-cooperative Games: A Note” **The International Conference on Game Theory and Management in Applications**, organized jointly by Indian Institute of Public Entrepreneurship, Hyderabad, ISI, Madras and The Center for

Economics and Finance, London, UK held during 17-18 December, 2012 at Green Park Hotel, Hyderabad. <http://www.gametheorysociety.org/conferences/2012.html>

- “Network Allocation Rules”  
**11th Meeting of Society for Social Choice and Welfare**, 17-20 August 2012, New Delhi, India.  
<http://www.isid.ac.in/~sscw2012/Program.html>
- “An allocation rule for Network Games”  
**Midwest Economics Association Conference** (International), 18-20 May 2012, Bloomington, Indiana University, USA. <http://editorialexpress.com/conference/MWETSspring2012/program/MWETSspring2012.html#10>

#### **TEACHING: (COURSES TAUGHT)**

- **Post Graduate** : Real Analysis, Measure Theory, Abstract Algebra, Operations Research, Operator Theory, Fuzzy Sets and Applications, Commutative Algebra.
- **M.Phil. / Ph.D. Course work**: Cooperative Game Theory, Fundamentals of game Theory, Research Methodology in Mathematics.
- **MBA Program** : Quantitative Techniques.

#### **THESIS/DISSERTATION COMMITTEES:**

Rupok Neog (Chair 2012), Pankaj Hazarika(Chair 2014), Loyimee Gogoi (Chair 2016), Pankaj Kakati (Chair 2015), Rajib Biswakarma(Chair 2018), Utpala Borgohain(Chair 2015), Papori Neog Borah(Chair 2018), Nomi Baruah(Chair 2017), Tiken M Singh(Chair 2017), Dhrubajit Choudhury(Chair 2016), Parishmita Baruah(2018), Ritu Dutta(2017), Sujata Gowala(2017).

#### **EXTERNAL EXAMINER FOR DOCTORAL DISSERTATIONS:**

Devanjan Hazarika (2016), Thanuja T S.(2018), Anusha Edwin (2018), Karishma Shraavan(2019).

#### **OUTREACH ACTIVITIES: (ONLY THE MOST RECENT ARE INCLUDED)**

- Involved in Organization of Summer Camps on Mathematics since 2002 to popularize Mathematics among School Children in the upper Assam region.
- About 35 Popular Talks on Real Analysis, Linear Algebra, Game Theory at under graduate levels at different colleges in Assam including some recent online deliberations.
- About 20 Orientation programmes on Choice Based Credit system introduced by Dibrugarh University in its under graduate courses at various colleges affiliated to Dibrugarh and Gauhati University.
- About 15 Expository talks on Cooperative Game Theory at Gauhati University, Assam Academy of Mathematics, Ganit Chara, National Meet for Researchers, Assam University, ISI-Kolkata.

#### **POPULAR PIECES IN NEWSPAPER/MAGAZINE**

- When India's Lockdown Ends, Onus of Protecting Our Lives From Covid-19 will Fall on us, Outlook Magazine, 26 May 2020. <https://www.outlookindia.com/website/story/opinion-when-indias-lockdown-ends-onus-of-protecting-our-lives-from-covid-19-will-fall-on-us/353517>
- Climate Control, Kaziranga Poaching, Mega Dam, etc.: From the eyes of a Game Theorist, <https://gonitsora.com/climate-control-kaziranga-poaching-mega-dam-from-the-eyes-of-a-game-theorist/>
- Buds blossom in charming allegory, Telegraph <https://www.telegraphindia.com/north-east/buds-blossom-in-charming-allegory/cid/603406>
- A thought-provoking and innovative play, <https://www.telegraphindia.com/north-east/a-thought-provoking-and-innovative-play/cid/603087>



## REFERENCES:

### **PROF. TES RAGHAVAN**

Professor Emeritus

Department of Mathematics and Statistics University of Illinois, Chicago

USA

Email: [terctu@gmail.com](mailto:terctu@gmail.com)

### **PROF. RADKO MESIAR**

Professor and Head

Department of Descriptive Geometry

and Mathematics, Faculty of Civil Engineering, Slovak University of Technology, Bratislava, Slovakia

Email: [mesiar@math.sk](mailto:mesiar@math.sk)