

Curriculum Vitae

Nachiketa Chattopadhyay

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1. Name: Nachiketa Chattopadhyay
2. Current Designation: Professor
3. Division and Unit: StatSD, SOSU, ISI Kolkata
4. Address, phone and email for Communication:
 - 91/7 REGENT ESTATE, KOLKATA 700092
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5. Details of Educational Qualification:
 - Passed Secondary examination of West Bengal Board of Secondary Examination in 1977 and ranked 13 th in order of merit.
 - Passed Higher Secondary examination of West Bengal Council of Higher Secondary Examination in 1979 and ranked 6 th in order of merit.
 - Passed Bachelor of Statistics (Hons.) from Indian Statistical Institute, Kolkata in 1982. 2nd position in batch as per aggregate marks.
 - Passed Master of Statistics (Quantitative Economics and Planning) from Indian Statistical Institute, Kolkata in 1984. Highest aggregate marks in the Stream.
 - Obtained PhD degree from Indian Statistical Institute, Kolkata in 1994. Thesis Supervisor: Prof Satya Ranjan Chakravarty, ERU, ISI Kolkata.
6. Current Research Areas/Pre-prints
 - Determination of Haemoglobin thresholds as a marker of Anaemia in Indian Population
 - Application of survival analysis models in Tobacco use data
 - Determining the agronomic monsoon arrival date from rainfall data
 - Dynamics of IgG2, IgG4 anti-filarial filaria specific IgE antibody among known filaria patients attending tertiary care hospital
7. Publication in peer reviewed journals:
 - (a) Chakravarty S R and Chattopadhyay N (2022). A compromise approach to the measurement of pro-pooriness, *Journal of Income Distribution*, 31 (3-4).
 - (b) Chakravarty S R, Chattopadhyay N and D'Ambrosio C (2022). An axiomatic approach to the measurement of comparative female disadvantage, *Social Indicators Research* 164 (2), pp. 747-772.
 - (c) Chakravarty S R, Chattopadhyay N, Lustig N and Aranda R (2021). Measuring directional mobility: The Bartholomew and Prais-Bibby indices reconsidered, *Research on Economic Inequality* 28, pp. 75-96.
 - (d) Chakravarty S R, Chattopadhyay N and D'Ambrosio C (2019). Pro-pooriness orderings, *Review of Income and Wealth* 65 (4), pp. 785-803.
 - (e) Chattopadhyay N, Dewanji A and Roy B K (2019). Re-examining Bartholomew Index of social mobility: Some new derivations with statistical inference, *Calcutta Statistical Association Bulletin* 71 (2), pp. 99-112.
 - (f) Chakravarty S R, Chattopadhyay N and Qingbin L (2019). Inequality and welfare: Some axiomatic characterizations, *International Journal of Economic Theory*, 15 (2), pp. 153-168.

- (g) Chakravarty S R, Chattopadhyay N, Deutsch J, Nissanov Z and Silber J (2016): Reference groups and the poverty line: An axiomatic approach with an empirical illustration, *Research on Economic Inequality* 24, pp 1-27 [Outstanding Author Contribution 2017]
- (h) Chakravarty S R, Chattopadhyay N and D'Ambrosio C (2015): On a family of achievement and shortfall inequality indices, *Health Economics*, 25 (12), pp. 1503-1513.
- (i) Chakravarty S R, Chattopadhyay N and Qingbin L (2015): Vulnerability orderings for expected poverty orderings, *Japanese Economic Review*, 66, pp. 300-310.
- (j) Chattopadhyay N, Ghosh A and Chakrabarti B K (2014): Inequality in societies, academic institutions and science journals: Gini and k-indices, *Physica A*, 410, pp. 30-34.
- (k) Chattopadhyay N, Coondoo D, Majumder A(2009): Demand threshold, zero expenditure and hierarchical model of consumer demand, *Metroeconomica*, 60, pp 91-118.
- (l) Chakravarty S R, Chattopadhyay N, Majumder A (1997): Income inequality and tax progression, *Hitotsubashi Journal of Economics*, 38, pp 93-99.
- (m) Chakravarty S R, Chattopadhyay N, Majumder A (1995): Income inequality and relative deprivation, *Keio Economic Studies* 32, pp 1-15.
- (n) Chakravarty S R, Chattopadhyay N (1994): An ethical index of relative deprivation, *Research on Economic Inequality* 5, pp 231-240.
- (o) Chakravarty S R, Chattopadhyay N (1994): On indices of marginal and total production cost, *Statistical Papers* 35, pp 351-360.

8. Publication in peer reviewed edited volumes

- (a) Maharaj B and Chattopadhyay N (2019). Reduced form polarization index: Alternative formulations and extensions, in *Deprivation, Inequality and Polarization: Essays in Honour of Satya Ranjan Chakravarty*, Indraneel Dasgupta and Manipushpak Mitra (eds.), Springer Nature, Singapore, pp. 195-210.
- (b) Tyagarupananda S and Chattopadhyay N (2019). A generalization of the Theil measure of inequality, in *Deprivation, Inequality and Polarization: Essays in Honour of Satya Ranjan Chakravarty*, Indraneel Dasgupta and Manipushpak Mitra (eds.), Springer Nature, Singapore, pp. 147-160.
- (c) Chakravarty S R and Chattopadhyay N (2018): Multidimensional poverty and material deprivation: A theoretical analysis, in *Handbook of Research on Economic and Social Well-Being*, Conchita D Ambrosio (ed.), Edward Elgar Publishing: Northampton, MA, pp. 153-170.
- (d) Chakravarty S R, Chattopadhyay N, Silber J and Wan G (2016): Measuring the impact of vulnerability on the number of poor: A new methodology with empirical illustrations, in *The Asian Poverty Miracle: Impressive Accomplishments or Incomplete Achievements?* Jacques Silber and Guanghua Wan (eds.), Edward Elgar Publishing, Northampton, MA, pp. 84-117.
- (e) Chakravarty S R, Chattopadhyay N and Silber J (2016): A poverty line contingent on reference groups: Implications for the extent of poverty in some Asian countries, *The Asian Poverty Miracle: Impressive Accomplishments or Incomplete Achievements?* Jacques Silber and Guanghua Wan (eds.), Edward Elgar Publishing, Northampton, MA, pp.30-50.
- (f) Chakravarty S R and Chattopadhyay N (2015): Measuring vulnerability to poverty: An expected poverty approach, in *Themes in Economic Analysis: Theory, Policy and Measurement*, Subrata Guha, Rajendra Prasad Kundu, S. Subramanian (eds.), Routledge, pp. 339-349.
- (g) Chakravarty S R, N Chattopadhyay and B Maharaj (2011) :Inequality and polarization: an axiomatic approach, in *The Measurement of Individual Well-being and Group Inequalities*, Routledge Frontiers of Political Economy, London and New York, pp 88-109.
- (h) Chakravarty S R, Chattopadhyay N (1998): Horizontal Merger and the Entropy Index of Concentration, in *Quantitative Economics: Essays in Honor of Prof Nikhilesh Bhattacharya*, Allied Publishers, pp 258-268.

9. Other Publications:

- (a) Chattopadhyay N, Sengupta D (2020) Individual, Structural and Exchange Mobility: Decomposition and axiom based measures, Technical Report SOSU/2020/1, <https://doi.org/10.31235/osf.io/8m46u>, pp 1-66.

- (b) Chattopadhyay N, Chakraborty, A. B. (2019): Conceptual Issues and Challenges for Development of GDKP - A Literature Survey in *Gross Domestic Knowledge Product (GDKP) for INDIA: Issues and Challenges - Proceedings of the workshop on GDKP India February 2019*, N Chattopadhyay (Ed), New Delhi, ISI, pp 32-38.
- (c) Other Publications: Project Reports of Research Projects funded by University Grants Commission (UGC), GOI and other Government Organizations
- i. 2010 UGC: Standardization of Indian Ethical Views from Swami Vivekananda's Standpoint
 - ii. 2009 UGC: Swami Vivekananda's Idea of Development and the Ramakrishna Mission
 - iii. 2008 UGC: Correspondence between Indian and Western Ethical Standards: Philosophical and Practical Criticisms
 - iv. 2007 UGC: Mahabharata – A Political Commentary Through Semantics
 - v. 2007 State Institute of Panchayat and Rural Development(SIPRD), Govt of West Bengal: Evaluation of Training of Trainers(TOT) of a UNDP-Govt of India training program PRI functionaries
 - vi. 2007 National Commission of Women, Government of India: Health Profile of Rural Women in West Bengal
 - vii. 2005 UGC: Empowering of Rural People and the Problem of Sustainability of the Political System in West Bengal
 - viii. 2005 UGC: Specialized Coaching, Screening Test Performance and Post- Selection Performance of the Selected : A Study of the Joint Entrance Examinations (Engineering) JEE in West Bengal
 - ix. 2002 UGC: Students of the Ramakrishna Mission Educational Institutions : A Tracer Study
 - x. 2002 UGC: Multifactor Intergenerational Socio-Economic Mobility of Scheduled Caste Population in West Bengal

10. Details of student supervision:

- Co-supervision of PhD Thesis:
 - (a) Bhargav Maharaj (Bhargav Bhattacharya): *Essays on Inequality, Polarization and Contests* (advised informally along with formal supervisor, Professor S.R. Chakravarty). PhD was awarded by ISI. Two papers based on the thesis were published jointly (see publication list above for details).
- Recent Master's Project:
 - (a) 2023-24: MSQE II Jagriti Dutta : *Empirical analysis of hierarchical model of consumer demand*
 - (b) 2024-25: MSQE II Charvi Dhruve: *A Study of the prevalence of tobacco use in India-I*
- Recent Master's Thesis:
 - (a) 2024-25: MSQE II Charvi Dhruve: *A Study of the prevalence of tobacco use in India-II*

11. Details of *externally funded* consultancy/projects as Principal Investigator:

- Research Based Projects with Central Government Ministries :
 - (a) 2023 Reserve Bank of India, Rural Consumer Sentiment Survey: A Statistical Data Audit
 - (b) 2022 Ministry of Coal, Revision of Weights of National Coal Index
 - (c) 2022 Ministry of Coal, Development of National Lignite Index
 - (d) 2022 NITI Aayog, Social Audit Applying Survey Sampling and Analytics
 - (e) 2021 Ministry of Mines, Development of National Mineral Index
 - (f) 2020 Ministry of Coal, Handholding with Coal Controllers Office for implementation of National Coal Index Developed by ISI
 - (g) 2019 Ministry of Statistics and Programme Implementation, Developing an Appropriate Structure Preserving Estimation (SPREE) Method for Estimating Domain-Level Aggregates from NSSO Household Surveys: Minimal Calibration Method
 - (h) 2019 Ministry of Statistics and Programme Implementation, Developing an Appropriate Methodology for Estimating Proportion of Villages with Specific Infrastructural Facility
 - (i) 2018 Ministry of Statistics and Programme Implementation, Developing a Browser Based Application Software for Collecting Data on Tablets NSSO 77th Round
 - (j) NHAI, Ministry of Road Transport and Highways, A Study on Socio-Economic Impact of National Highway 6
 - (k) 2021 Reserve Bank of India, Eastern Regional Office Study on MSME

- (l) 2015 Reserve Bank of India, Estimation of Demand for Currency and Assessment of Demand-Supply Mismatches at Aggregate and Regional Level
- (m) 2015 DGCI&S, Ministry of Commerce and Industry, Developing a Methodology for evaluation of impact of Foreign Trade Policy 2015-20
- (n) 2013 DGCI&S, Ministry of Commerce and Industry, Reviewing the existing System of Compilation of Trade Indices
- Research Based Projects with State Government Ministries:
 - (a) 2025 Sixth State Finance Commission West Bengal, Developing a methodology for disbursement of funds to PRIs and SDG based performance indicators of PRIs
 - (b) 2024 TIFT, Government of Tripura, Development of District Good Governance Index
 - (c) 2023 Fifth State Finance Commission West Bengal, Reviewing Delivery of Entrusted Services and Financial Health of Rural Local Bodies in West Bengal,
 - (d) 2023 Directorate of Economics and Statistics (DES), Government of Tripura, Technical Guidance on Activities Regarding Support for Statistical Strengthening (SSS)
 - (e) 2018 Chhattisgarh Directorate of Economics and Statistics (DES), Household Survey on Livelihoods and Other Aspects in Surguja
- Research Projects with Private Entities:
 - (a) 2018 RS Software, Statistical Detection of Fraudulent ATM Transactions through National Financial Switch - National Payments Corporation of India
 - (b) 2016 TCS-iON, Developing a Test Analytics Framework for online tests

12. Other relevant information

- Membership of Central Government Committees:
 - (a) 2025 DGCI&S, Ministry of Commerce and Industry, Chairperson, Revision of Base Year for Merchandise Trade Indices
 - (b) 2025 DGCI&S, Ministry of Commerce and Industry, Chairperson, Technical Committee to facilitate for collection of data in Trade in Services
 - (c) 2023 Ministry of Mines, Committee to suggest alternative mechanisms for computation of ASP (Average Sale Price) of Iron ore in the country
 - (d) 2021 Ministry of Mines, Committee for examining the issues of double taxation and developing NMI
 - (e) 2019 Ministry of Statistics and Programme Implementation, Expert Group on Gross Domestic Knowledge Product (GDKP)
 - (f) 2019 Ministry of Statistics and Programme Implementation, Working Group 73rd Round NSSO Survey
 - (g) 2019 Ministry of Statistics and Programme Implementation, Committee for developing curriculum for training on Planning and Designing of Large Scale Sample Surveys
 - (h) 2016 Reserve Bank of India TAG
- Membership of State Government Committees:
 - (a) 2025 Department of Urban Development and Municipal Affairs, Government of West Bengal, Municipal Valuation Committee, Ward 1-141
 - (b) 2025 Department of Urban Development and Municipal Affairs, Government of West Bengal, Municipal Valuation Committee, Extended Area
- Other Committee
 - (a) 2021 Lead of the Working Group in Medical Statistics and Digital Data Analytics, JIVAN (Jiva-Vijnan-Anweshan-Niketan), Centre for Research in Biological Sciences, Ramakrishna Mission Vivekananda Educational and Research Institute (RKMVERI) (Deemed University)
- Invited Expert
 - (a) 2025 IIFT, Kolkata External Expert for Committee to review progress of Ph.D. Management Scholar
 - (b) 2024 PhD Thesis Viva, Department of Mathematics and Statistics, Aliah University
 - (c) 2023, 2024 PhD Thesis Examiner, Department of Mathematics and Statistics, Aliah University