

# Biodata



**Dr. V. B. Ghute**

**Professor**

**Department of Statistics**

**School of Computational Sciences**

**Punyashlok Ahilyadevi Holkar**

**Solapur University Solapur (MS)-413255**

## Personal and Academic Details

Name : **Dr. Vikas Bhaurao Ghute**  
Designation : Professor of Statistics  
Present Position : Professor and Director, School of Computational Sciences  
Head, Department of Statistics  
Punyashlok Ahilyadevi Holkar Solapur University Solapur.  
Organization : Punyashlok Ahilyadevi Holkar Solapur University  
Solapur (MS) -413255.  
Contact Details : Office: 0217-2744776 (Ext 301, 104)  
Cell: +91 9881372729  
E-mail ID: vbghute\_stats@rediffmail.com and  
vbghute@sus.ac.in  
Date of Birth : 09<sup>th</sup> September 1964

## Educational Background:

B.Sc. (Statistics)	1985	Shivaji University Kolhapur.
B.Sc. (Mathematics)	1986	Shivaji University Kolhapur.
M.Sc. (Statistics)	1988	Shivaji University Kolhapur.
Ph.D. (Statistics)	2008	Shivaji University Kolhapur.

**Title of Thesis** : Some Contributions to Multivariate Statistical Process Control.

## Teaching Experience :

**Shri Swami Vivekanand Shikshan Sanstha's** : From Aug. 1988 to June 1989  
• Dr. Bapuji Salunkhe College Miraj.

**Rayat Shikshan Sanstha's** : From July 1989 to Dec. 2008  
• Karmaveer Bhaurao Patil Mahavidyalaya  
Pandharpur, Dist. Solapur.  
• Arts, Science and Commerce College  
Ramanandnagar, Dist. Sangli.  
• Arts, Science and Commerce College  
Pusegaon, Dist. Satara.  
• Dahiwadi College Dahiwadi, Dist. Satara.

**Punyashlok Ahilyadevi Holkar** : From 1<sup>st</sup> Jan. 2009 onwards  
**Solapur University Solapur**

**Total Teaching Experience** : **33 Years**

## Administrative Experience

- Registrar, Punyashlok Ahilyadevi Holkar Solapur University, Solapur (From 26 Feb. 2019 to 01 Dec. 2020).
- Officiating Registrar, Punyashlok Ahilyadevi Solapur University, Solapur (From 09 Oct. 2018 to 25 Feb. 2019 and 02 Dec. 2020 to 13 Sept. 2021).
- Director, School of Computational Sciences, Punyashlok Ahilyadevi Holkar Solapur University Solapur. (From July 2009 to July 2015 and from 10<sup>th</sup> July 2018 onwards).
- Head, Department of Statistics, Punyashlok Ahilyadevi Holkar Solapur University Solapur (July 2009 to February 2019 and December 2020 onwards).
- Head, Department of Mathematics, Punyashlok Ahilyadevi Holkar Solapur University Solapur. (2012 and From August 2017 to March 2018).
- Incharge Director, School of Allied Health Sciences, Punyashlok Ahilyadevi Holkar Solapur University Solapur. (From 27 Nov. 2018 onwards).
- Director (Additional charge), Knowledge Resource Center (KRC) University Library, Punyashlok Ahilyadevi Holkar Solapur University Solapur. (From 13 Oct. 2016 to 13 Oct.. 2018).
- Contact Person for SET Examination of Solapur University Center conducted by Savitribai Phule Pune University Pune (From Feb. 2017 onwards).

## Important Committees of University

- Chairman of PG Entrance Committee.
- Member of IPR Cell committee
- Member of Purchase Committee.
- Member of Library Committee.
- Committee for allocation of funds for holding Seminars/ Conferences.
- Scrutiny Committee.
- Academic and Administrative Audit Committee.
- Local inquiry committee several times.
- Member of Statute Committee.
- Member of the Selection Committee at university level and college level.
- Member on selection committees for teaching posts in other universities (Shivaji University Kolhapur, Swami Ramanand Teerth Marathwada University Nanded, Dr. Babasaheb Ambedkar Marathwada University Aurangabad) on few occasions.

## Contribution to Corporate Life

Worked on following Bodies/ Committees

- **Member of Senate:** Punyashlok Ahilyadevi Holkar Solapur University Solapur.
- **Member of Management Council:** Punyashlok Ahilyadevi Holkar Solapur University Solapur.
- **Member of Governing Body**
  - Walchand College of Arts and Science Solapur (Autonomous).
- **Member of Academic Council**
  - Punyashlok Ahilyadevi Holkar Solapur University Solapur.
  - Karmaveer Bhaurao Patil Mahavidyalaya Pandharpur (Autonomous College)
- **Member of Research and Recognition Committee (Statistics)**
  - Mumbai University Mumbai.
  - Punyashlok Ahilyadevi Holkar Solapur University Solapur.
- **Chairman: Ad-hoc Board of Studies in Statistics**
  - Punyashlok Ahilyadevi Holkar Solapur University Solapur.
- **Member: Board of Studies in Statistics and Computer Applications**
  - Savitribai Phule Pune University Pune (From 2018).
- **Member: Board of Studies in Statistics**
  - Shivaji University, Kolhapur.
  - Karnatak University Dharwad.
  - Swami Ramanand Teerth Marathwada University Nanded.
- **Member: Board of Studies in Business Eco., Banking, Mathematics and Statistics**
  - Shivaji University, Kolhapur (2000-2005).
- **Member: Board of Studies in Business Statistics and Business Mathematics**
  - Dhananjayrao Gadgil College of Commerce Satara (Autonomous College)
- **Member: Board of Studies in Statistics of following Autonomous Colleges.**
  - Yashwantrao Chavan Institute of Science Satara.
  - Vivekanand College Kolhapur.
  - Sadguru Gadage Maharaj College Karad.
  - Tuljaram Chaturchand College Baramati.
  - Sangameshwar College Solapur
  - Karmaver Bhaurao Patil Mahavidyalaya Pandharpur
- **Member:** Board of College and University Development Committee.
- **Member:** Board of Examinations in Statistics
  - Gulbarga University Kalaburagi.

- **University Representative:**

- Board of Management of Community College running under UGC scheme at Shri Shivaji Mahavidyalaya, Barshi Dist. Solapur.
- **Member:** Ethical Committee at Pandit Deendayal Upadhyay Dental College Solapur.

### Awards

- “Sarvapalli Radhakrishnan Best Teacher Award” of Shikshak Kalyaan Foundation Delhi on 22 December 2021.
- “Best Teacher Award” of Punyashlok Ahilyadevi Holkar Solapur University Solapur in August 2021.
- “Best Professor in Department of Statistics” of Hindustan Unilever Limited, Dewang Mehta National Education Award in November 2017.
- “CASI Community Leader Award”, Maha Walkathon 2018, CASI Global Mumbai.
- “Zonal Championship Certificate of Appreciation” by E-Cell IIT Bombay.

### Visiting Fellow

- Visited to Department of Statistics, Shivaji University Kolhapur under UGC visiting Fellow scheme during 6<sup>th</sup> Nov. 2012 to 12<sup>th</sup> Nov. 2012.

### Association with Policy Bodies

- Meeting with Chairman of Fourth Finance Commission of Maharashtra on 22<sup>nd</sup> September 2014 at Mumbai.
- Special Invitee for District Level Meeting of Sixth Economic Census (10<sup>th</sup> October 2013) at Solapur.
- Special Invitee for District Level Meeting of Seventh Economic Census (8<sup>th</sup> October 2020) at Solapur.

### Editorial and Review Work

- Member of Editorial Board of Avishkar- Solapur University Research Journal.
- External Referee for examining Ph.D. Thesis of Dr. Babasaheb Ambedkar Marathwada University Aurangabad, Shivaji University Kolhapur, Swami Ramanand Teerth Marathwada University Nanded, Kavayitri Bahinabai Chaudhari North Maharashtra University Jalgaon, Kakatiya University Warangal, Osmania University Hyderabad, Karnataka University, Dharwad, Telangana University Dichpally Nizamzbad, Sri Krishnadevaraya University, Ananthapuramu., Mangalore University Mangalore.

### Reviewer of Research Journals

- Communications in Statistics-Theory and Methods.
- Communications in Statistics-Simulation and Computation.
- Computers and Industrial Engineering.

- Applied Mathematics and Information Sciences.
- Journal of Modern Applied Statistical Methods.
- Quality and Reliability Engineering International
- Judge for Avishkar-University Level Research Festival (2013, 2014, 2015).

### Important Academic Events Organized

- Convener, *National Workshop on Statistical Computing*, 19-21, September, 2013 sponsored by Council of Scientific and Industrial Research (CSIR) New Delhi at Solapur University, Solapur.
- Convener, *National Conference on New Horizons of Statistics*, 21-23 October, 2013 sponsored by Department of Science and Technology (DST), New Delhi, at Solapur University, Solapur.
- Convener, *National Seminar on Fuzzy Mathematics and Its Applications*, 28 February, 2015 at Solapur University, Solapur.
- Convener, *National Seminar on Creating Awareness about Official Statistics*, 09 January 2017 sponsored by National Statistical Systems Training Academy(NSSTA), Ministry of Statistics and Programme Implementation, Government of India at Solapur University Solapur.
- Convener, *National Workshop on Creating Awareness about Official Statistics*, 29th January 2019 sponsored by National Statistical Systems Training Academy(NSSTA), Ministry of Statistics and Programme Implementation, Government of India at Solapur University Solapur.
- Convener, National Workshop on Statistics in Medicine and Health Science organized at PAH Solapur University Solapur during 16-17 January 2020.
- Convener, State Level Workshop on Statistical Analysis using Advanced Statistical Software, organized by PAH Solapur University Solapur during 26 February 2020.
- Convener, National e-Conference on Recent Advances in Applied Statistics, organized by PAH Solapur University Solapur during 24 April 2021.

### Leadership and Membership of Professional Bodies/ Association

- **Life Member:**
  - International Indian Statistical Association (IISA).
  - Indian Society for Probability and Statistics (ISPS).
  - Shivaji University Statistics Teachers' Association (SUSTA).
- **Vice President:**
  - Shivaji University Statistics Teachers' Association (From 2015 to till date).

### Training and Orientation

- Attended one week "Training of Trainers Programme (TOT) on Official Statistics" conducted for HODs of Statistics Department of Indian Universities organized by National Statistical Systems Training Academy (NSSTA), Ministry of Statistics and

Programme Implementation, Govt. of India, held at Greater Noida during 24-28 October 2016.

- Attended Orientation Workshop Promotion of Research and Innovation in Science organized by Rashtriya Uchattar Shiksha Abhiyan (RUSA) at Rashtra Sant Tukadoji Maharaj Nagpur University, Nagpur on 23 Feb. 2018.
- Participated in the Third Regional Workshop (Western Region) under Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNTT) Organized by MHRD, Govt. of India in association with Indian Institute of Science Education and Research (IISER) Pune on 13 Apr. 2018.
- Completed Orientation Course during 06 April to 02 May 1993 at Dr. Babasaheb Ambedkar Marathwada University Aurangabad.
- Completed Refresher Course during 01-28 March 1993 at Shivaji University Kolhapur.
- Completed Refresher Course during 31 October to 27 November 1995 at Savitribai Phule Pune University Pune.
- Completed Refresher Course during 8-29 October 2002 at Shivaji University Kolhapur.
- Attended "A 12-days Course in C-Language for College Teachers" during 23 June-04 July 1998 at Shivaji University, Kolhapur.

### Research Activities

- **Research Project:**
  - Nonparametric Quality Control Techniques, University Grants Commission, New Delhi (2012-14).
- **M. Phil. Degree Awarded: 01**
  - Trupti S. Zaware (2010), "Hotelling's  $T^2$  Control Chart".
- **Ph. D. Degree Awarded: 04**
  - Digambar M. Zombade (2015), "Nonparametric Quality Control Techniques".
  - Shobha V. Rajmanya (2017), "Process Variability Control Procedures".
  - Sharad M. Nimbale (2017), "On Artificial Neural Network Approach for Statistical Process Control".
  - Pramod M. Dargopatil (2018), "On Autocorrelated Statistical Process Control"
- **Ph. D. Working: 07**
  - Mahesh M. Deshpande, "Some Contributions to Process Capability Analysis" (Reg. in 2017).
  - Rupali A. Kapase "A Change-Point Approach for Statistical Process Control" (Reg. in 2017).
  - Vijaykumar K. Ghadage "An Alternative Control Charting Approach to Statistical Process Control and Monitoring" (Reg. in 2017).

- Yogesh G. Raut, "Some Contributions to Statistical Aspects of Designs and Analysis of Clinical Trials" (Reg. in 2018).
- Chandrakant G. Gardi, "Statistical Process Control based on Ranked Set Sampling" (Reg. in January 2021).
- Sarika A. Pawar, "Auxiliary Information based Statistical Process Control" (Reg. in January 2021).
- Onkar D. Ghadge, "Development of Quality Control Methods based on Regression Approach (Reg. in January 2021).

**Research Publications: 38: (International: 25, National and others: 13)**

**Listed in SCOPUS database: 08, *h-index*: 04**

**Citations (Google Scholar): 196, *h-index*: 07, i10-index: 05**

- Ghute V. B. and Shirke D. T. (2007). Joint monitoring of multivariate process using synthetic control charts, *International Journal of Statistics and Management Systems*, Vol.2, No. (1-2), pp.129-141.
- Ghute V. B. and Shirke D. T. (2007). Robustness of multivariate synthetic control chart to non-normality", *Trajectory*, Vol.15, No. 1, pp.35-49.
- Ghute V. B. and Shirke D. T. (2008). A multivariate synthetic control chart for process dispersion, *Quality Technology and Quantitative Management*, Vol.5, No.3, pp. 271-288.
- Ghute V. B. and Shirke D. T. (2008). A multivariate synthetic control chart for monitoring process mean vector, *Communications in Statistics-Theory and Methods*, Vol. 37, No. 13, pp. 2136-2148.
- Ghute V. B. and Shirke D. T. (2008). A synthetic T<sup>2</sup> chart with adaptive sample sizes, *IAPQR Transactions*, Vol. 33, No. 2, pp. 95-107.
- Ghute V. B. and Shirke D. T. (2011). A bivariate nonparametric synthetic control chart for monitoring process location, Proceedings of the International Congress on Productivity, Quality, Reliability, Optimization and Modeling, Vol.1, pp.648-661.
- Ghute V. B. and Shirke D. T. (2012). A nonparametric signed-rank control chart for bivariate process location, *Quality Technology and Quantitative Management*, Vol. 9, No.4, pp. 317-328.
- Ghute V. B. and Shirke D. T. (2012). Bivariate nonparametric synthetic control chart based on sign test, *Journal of Industrial and Systems Engineering*, Vol.6, No.2, pp.108-121.
- Ghute V. B. and Shirke D. T. (2013). Multivariate moving average control chart for process variability, *International Journal of Statistics and Analysis*, Vol.3, No.2, pp.97-104.
- Rajmanya S. V. and Ghute V. B. (2013). Synthetic D chart under non-normality, *International Journal of Engineering Research and Technology*, Vol. 2, No.1, pp.2002-2010.



- Ghute V. B. (2013). Non-parametric CUSUM control charts, *CRITIC*, Vol.2, No.1, pp.131-136.
- Ghute V. B. (2013). Non-parametric control chart for process location, *Contemporary Research in India*, Vol. 3, No.2, pp. 276-280.
- Ghute V. B. (2013). Distribution-free control chart for bivariate process, *Journal of Academia and Industrial Research*, Vol.1, No.11, pp.703-705.
- Ghute V. B. and Shirke D. T. (2013). A multivariate moving average control chart for mean vector, *Journal of Academia and Industrial Research*, Vol.1, No.12, pp.795-800.
- Rajmanya S. V. and Ghute V. B. (2014). A Synthetic control chart for monitoring process variability, *Quality and Reliability Engineering International*, Vol.30, pp. 1301-1309.
- Ghute V. B. and Shirke D. T. (2014). Effect of non-normality on multivariate synthetic |S| control chart, *International Journal of Agricultural and Statistical Sciences*, Vol. 10 No. 1, pp. 93-99.
- Zombade D. M. and Ghute V. B. (2014). Nonparametric control charts for monitoring process variability, *International Journal of Engineering Research and Technology*, Vol. 3, No. 5, pp. 2358-2362.
- Ghute V. B. and Rajmanya S. V. (2014). Moving average control charts for process dispersion, *International Journal of Science, Engineering and Technology Research*, Vol. 3, No. 7, pp. 1904-1909.
- Zombade D. M. and Ghute V. B. (2014). Nonparametric control charts for variability using runs rules, *The Experiment-International Journal of Science and Technology*, Vol. 24, No. 4, pp. 1683-1691.
- Zombade D. M. and Ghute V. B. (2014). Nonparametric CUSUM charts for process variability, *Journal of Academia and Industrial Research*, Vol. 3, No. 1, pp. 53-57.
- Nimbale S. M. and Ghute V. B. (2015). Artificial Neural Network Model for Monitoring the Fraction Nonconforming Control Chart, *International Journal of Science and Research*, Vol. 4 No.3. pp. 188-190.
- Rajmanya, S. V. and Ghute V. B. (2015). A new chart for monitoring variability of bivariate processes, *Contemporary Research in India*, Special Issue, pp. 260-263.
- Rajmanya, S. V. and Ghute V. B. (2015). CUSUM control chart for monitoring process variability, *Proceeding of National Seminar on Recent Developments in Applied Statistics*, pp. 159-166.
- Nimbale S. M. and Ghute V. B. (2016). A Neural Network based Individual Control Chart, *International Journal of Engineering Research and Technology*, Vol. 5 No.5. pp. 24-27.
- Ghute V. B. and Rajmanya, S. V. (2016). An efficient monitoring of process variability, *Proceedings of State Level Seminar on Recent Trends in Industrial Statistics*, pp.27-39.

- Rajmanya, S. V. and Ghute V. B. (2016). Auxiliary Information based Synthetic Chart for Process Variability, *Proceedings of State Level Seminar on Recent Trends in Industrial Statistics*, pp.40-49.
- Dargopatil, P. M. and Ghute, V. B. (2017). Effect of autocorrelation on the performance of the S chart, *International Journal of Agricultural and Statistical Sciences*, Vol. 13 No.2, pp. 465-472.
- Dargopatil, P. M. and Ghute, V. B. (2017). Performance analysis of synthetic R chart for autocorrelated process, *Assam Statistical Review-A Research Journal of Statistics*, Vol. 31, No. 1-2, pp. 58-74.
- Dargopatil, P. M. and Ghute, V. B. (2018). New sampling strategies to reduce the effect of autocorrelation on the synthetic T<sup>2</sup> chart to monitor bivariate process, *Quality and Reliability Engineering International*, Vol.35 No.1, pp. 30-46.
- Kapase R. A. and Ghute, V. B. (2018). Estimating the period of a step change in single observation data, *International Journal of Agricultural and Statistical Sciences*, Vol. 14 No. 2, pp. 433-438.
- Zombade D. M. and Ghute V. B. (2019). Shewhart-type nonparametric control chart for process location, *Communications in Statistics-Theory and Methods*, Vol. 48 No. 7, pp. 1621-1634.
- Deshpande M. M. and Ghute V. B. (2019). Comparison of process capability indices under AR(2) process, *International Journal of Scientific Research in Mathematical and Statistical Sciences*, Vol. 6 No. 1, pp. 131-137.
- Raut Y. G. and Ghute V. B. (2019). Challenges of sample size in design and analysis of clinical trials: A review article, *International Journal of Research and Analytical Review*, Vol. 6 No. 2, pp.40-43.
- Nimbale S. M. and Ghute V. B. (2019). Monitoring mean and variability using artificial neural networks, *International Journal of Scientific Research in Mathematical and Statistical Sciences*, Vol. 6 No. 3, pp. 153-158.
- Zombade D. M. and Ghute V. B. (2019). Nonparametric CUSUM control chart for process location, *Review of Research*, Vol. 8 No. 6, pp. 1-8.
- Raut Y. G. and Ghute V. B. (2020). Importance of Sample size in the design and analysis of clinical trials, *International Journal of Research and Analytical Review*, Vol. 7 No. 4, pp.83-87.
- Kapase R. A. and Ghute V. B. (2021). Identifying the time of permanent shift in the normal process mean with memory type control chart, *Statistics and Applications* (Accepted for publication)
- Nimbale S. M. and Ghute V. B. (2021). Neural network based nonparametric control charts for location, *International Journal of Statistics and Reliability Engineering* (Accepted for publication).

## Invited Talk/ Resource Person for Conferences and Workshops: 31

- Invited talk on “Multivariate Statistical Process Control”, *National Level Seminar on Recent Developments in Statistical Quality Control* organized by Karmaveer Bhaurao Patil Mahavidyalaya, Pandharpur during 05-06 October 2009.
- Resource Person “Statistical Quality Control”, *One Day Workshop on Revised Syllabus of Statistics for B.Sc. II and BCS-I* organized by Balwant College, Vita on 03 December 2009.
- Invited talk on “Acceptance Sampling for Attributes”, *Workshop on R Software* organized by Sangameshwar College, Solapur on 03 January 2010.
- Invited talk on “Multivariate Process Control”, *National Conference on Industrial Statistics and Computational Mathematics* organized by North Maharashtra University, Jalgaon on 23 January, 2010.
- Invited talk on “Nonparametric Control Charts”, *National Level Seminar on Recent Developments in Statistics and Quality Control* organized by K.B.P. Mahavidyalaya, Pandharpur during 26-27 August 2010.
- Resource Person “Point Estimation”, *A Workshop on NET/SET Coaching for Statistics* organized by Shivaji University, Kolhapur in November 2010.
- Resource person “Dispersion Control Techniques”, *National Workshop on Recent Trends in Statistics* organized by Dr. Patangrao Kadam Mahavidyalaya, Sangli on 01 January 2011.
- Resource Person “Applications of Statistics”, *Workshop on SPSS* organized by Sangameshwar College, Solapur on January 27 January 2012.
- Invited talk on “Performance Improvement of Variability Control Charts”, *National Seminar on Recent Developments in Statistical Modeling* organized by Shivaji University, Kolhapur during 12-13 October 2012.
- Invited talk on “Multivariate Process Control Charts”, *National Seminar on Recent Trends in Applied Statistics* organized by Y.C. Institute of Science, Satara during 14-15 December 2012.
- Resource Person “Distribution Theory”, *UGC Sponsored Workshop for Training SC / ST and Minority Candidates for NET Examination* organized by Shivaji University, Kolhapur on 8 December 2013.
- Invited talk on “The synthetic D Chart under Non-normality”, *National Conference on Current Practices in Mathematics, Statistics and Actuarial Science* organized by North Maharashtra University, Jalgaon during March 7-8 March 2013.
- Invited talk on “A Nonparametric Control Chart procedure for Monitoring Multivariate Process Location”, *National Seminar on Statistical Inference and Stochastic Modeling* organized by Karnatak University, Dharwad during 15-16 March 2013.

- Invited talk on “Log Linear Models for Contingency Tables and Their Applications”, *National Workshop on Techniques for Discrete Data Analysis* organized by Shivaji University, Kolhapur during 21-22 March 2013.
- Invited talk on “Synthetic Control Chart Approach to Monitor Process Dispersion”, *National Conference on Applied Statistics and Related Working Practices* organized by North Maharashtra University, Jalgaon during 30-31 January 2014.
- Invited talk on “Testing of Hypothesis”, *State Level Workshop on Research Methodology in Economics* organized by Solapur University, Solapur on 24 February 2014.
- Resource person for on “Large Sample Tests”, *Workshop on use of Statistics in Biological Research* organized by Y. C. Institute of Science, Satara on 24 September 2015.
- Invited talk on “Nonparametric control chart for joint monitoring of location and scale”, *National Seminar on Recent Developments on Applied Statistics* organized by Balwant College Vita during 25-26 September 2015.
- Invited talk on “Improved control chart structure for process parameters”, *International Conference on Celebrating Statistical Innovation and Impact in a World of Big and Small Data* organized by S.P. Pune University, Pune during 20-24 December 2015.
- Invited talk on “An efficient monitoring of process variability”, *State Level Seminar on Recent Trends in Industrial Statistics* organized by A. S. C. College, Ramanandnagar on 30 January 2016.
- Invited talk on “Joint monitoring of location and scale”, *National Conference on Applied Statistics* organized by Shivaji University, Kolhapur during 10-11 March 2016.
- Invited talk on “Inferential Statistics” *National Level workshop on Data Science* organized by Walchand Institute of Technology, Solapur during 20-21 January 2017.
- Invited talk on “Performance of Non-parametric Control Chart for Location” *National Conference on Applied Statistics and Informatics* organized by Department of Statistics, Shivaji University, Kolhapur during March 10-11 March 2017.
- Resource Person for Workshop on “*Draft Syllabus under Autonomous Status*” organized by Y. C. Institute of Science, Satara on 22 December 2017.
- Invited talk on “A skip sampling strategy to reduce the effect of autocorrelation on the multivariate control chart”, *National Seminar on Statistical Modelling and Applications* organized by Shivaji University, Kolhapur during 23-24 February 2018.
- Resource person for “*One Day Workshop on Drafting Syllabus Recommendations B.Sc. III (Statistics)*” organized by Sangameshwar College, Solapur on 26 February 2018.

- Invited talk on “Statistical Process Control”, *National Seminar on Recent Development in Statistics*, organized by University of Mumbai during 22-23 March 2019.
- Keynote Speaker-*International Conference on Multidimensional and Hybrid Materials for Energy and Environment*, organized by Yashavantrao Chavan Institute of Science Satara during 29-31 January 2020.
- Invited Talk on Effect of autocorrelation on the performance of D chart for monitoring process dispersion in *National Seminar on Advances in Statistical Modeling and Inference*, organized by Shivaji University Kolhapur during 14-15 February 2020.
- Invited Talk on Efficient Monitoring of Process using Control Charts in *International Virtual Conference on Prof. C. R. Rao’s School of Thoughts on Statistical Sciences* organized by Pondicherry University Pondicherry during 21-29 November 2020.
- Special Invited Talk on Multivariate Process Monitoring using Autocorrelated Data in *Fifth International Webinar on Recent Trends in Statistical Theory and Applications* organized by Indian Society of Probability and Statistics (ISPS), Kerala Statistical Association and University of Kerala, Trivandrum during 29 June-02 July 2021.
- Resource Person in the Faculty Development Program organized by Yashavantrao Chavan Institute of Science Satara on 01 September 2021.
- Invited Talk on Process Monitoring using Auxiliary Information in *International e-Conference on Recent Advances in Statistics* organized by Sadguru Gadage Maharaj College Karad during 11-12 October 2021.

### Research Papers Presented in Conferences: 72

(International Conference: 35, National and others: 37)

- Ghute V. B.\* and Shirke D. T. (2005). “Bivariate nonparametric control charts”, *Conference of Indian Society for Probability and Statistics* organized by Bangalore University, Bangalore during 28-30 December 2005.
- Ghute V. B. (2005). “Bivariate nonparametric control charts”, *Research Colloquium*, organized by Shivaji University, Kolhapur on 22 November 2005.
- Ghute V. B. (2006). “A synthetic control chart for monitoring process variability”, *Campaign on University Research and Training*, organized by Shivaji University, Kolhapur during 6-7 October 2006.
- Ghute V. B. (2006). “Nonparametric synthetic control charts for bivariate process location”, *Research Colloquium*, organized by Shivaji University, Kolhapur on 25 November 2006.
- Ghute V. B.\* and Shirke D. T. (2007). “Nonparametric synthetic control charts for bivariate process location”, *International Conference on Statistical Science, OR and IT* organized by Dravidian University, Kuppam (held at Tirupati) during 7-9 January 2007.

- Ghute V. B.\* and Shirke D. T. (2007). "A synthetic T2 control chart with adaptive sample sizes", *National Conference on Statistical Modeling and Inference* organized by Shivaji University, Kolhapur during 12-14 February 2007.
- Ghute V. B. (2009). "A nonparametric signed-rank control chart for bivariate process location", *National Seminar on Statistical Inference and Applications* organized by Shivaji University, Kolhapur during 22-23 May 2009.
- Ghute V. B.\* and Shirke D. T. (2011). "A bivariate nonparametric synthetic control chart for monitoring process location", *International Congress on Productivity, Quality, Reliability, Optimization and Modeling*, organized by ISI, QCI and DRDO, New Delhi during, 6-7 February 2011.
- Ghute V. B. (2011). "Robustness to non-normality of the multivariate synthetic |S| control chart", *International Conference on Statistics, Probability and Related Areas* organized by Cochin University of Science and Technology, Cochin during 19-22 December, 2011.
- Ghute V. B. (2011). "Bivariate nonparametric CUSUM control charts", *National Conference on Advances in Statistical Theory and Applications* organized by Bangalore University, Bangalore during 16-18 November 2011.
- Ghute V. B. (2012). "Multivariate moving average control chart for process variability", *International Conference on Statistics and Information Analytics* organized by Loyola College Chennai during August 22-25, 2012.
- Ghute V. B. (2012). "Multivariate nonparametric control chart", *International Conference on Frontiers of Statistics and its Applications* organized by Pondicherry University Pondicherry during December 21-23, 2012.
- Rajmanya S. V.\* and Ghute V. B. (2012). "A synthetic control chart for monitoring process variability", *International Conference on Frontiers of Statistics and its Applications* organized by Pondicherry University Pondicherry during December 21-23, 2012.
- Ghute V. B. (2012). "Nonparametric control charts for bivariate process location", *National Conference on Interface between Statistics and other Sciences* organized by Dr. B.A. M. University, Aurangabad during 24-25 February 2012.
- Ghute V. B. (2013). "Robust Monitoring of process variability", *International Conference on Recent Advances in Statistics and Their Applications* organized by Dr. B. A. M. University Aurangabad during December 26-28, 2013.
- Zombade D. M.\* and Ghute V. B. (2013). "A nonparametric control chart for variability", *International Conference on Recent Advances in Statistics and Their Applications* organized by Dr. B. A. M. University Aurangabad during December 26-28, 2013.
- Rajmanya S. V.\* and Ghute V. B. (2013). "Synthetic G chart for monitoring process variability", *International Conference on Recent Advances in Statistics and Their Applications* organized by Dr. B. A. M. University Aurangabad during December 26-28, 2013.

- Ghute V. B. (2013). "Development of nonparametric control charts", *National Seminar on Applications of Statistics to Various Fields* organized by Sangameshwar College, Solapur during 4-5 January, 2013.
- Rajmanya S. V.\* and Ghute V. B. (2013). "Robustness of synthetic D chart for non-normality", *National Seminar on Applications of Statistics to Various Fields* organized by Sangameshwar College, Solapur during January 4-5 January 2013.
- Ghute V. B. (2013). "Multivariate moving average control charts", *National Conference on Quality, Reliability and Optimization* organized by P.V.P. Mahavidyalaya, Kavathe-Mahankal during 14-15 February 2013.
- Zombade D. M.\* and Ghute V. B. (2013). "Nonparametric CUSUM chart for variability", *National Conference on New Horizons of Statistics* organized by Solapur University, Solapur during October 19-21 October 2013.
- Rajmanya S. V.\* and Ghute V. B. (2013). "Robustness of synthetic G chart for non-normality", *National Conference on New Horizons of Statistics* organized by Solapur University, Solapur during 19-21 October 2013.
- Nimbale S. M.\* and Ghute V. B. (2013). "An Artificial Neural Network (ANN) approach to X-bar chart", *National Conference on New Horizons of Statistics* organized by Solapur University, Solapur during 19-21 October 2013.
- Ghute V. B. (2014). "Improved process variability control chart", *International Conference on Statistics and Information Technology for Growing Nation* organized by Sri Venkateswara University Tirupati during November 30-December 02, 2014.
- Zombade D. M.\* and Ghute V. B. (2014). "Nonparametric control chart based on runs statistic", *International Conference on Statistics and Information Technology for Growing Nation* organized by Sri Venkateswara University Tirupati during November 30-December 02, 2014.
- Dargopatil P. M.\* and Ghute V. B. (2014). "Control chart for variability of autocorrelated process", *International Conference on Statistics and Information Technology for Growing Nation* organized by Sri Venkateswara University Tirupati during November 30-December 02, 2014.
- Rajmanya S. V.\* and Ghute V. B. (2014). "A new bivariate control chart for variability", *International Conference on Statistics and Information Technology for Growing Nation* organized by Sri Venkateswara University Tirupati during November 30-December 02, 2014.
- Nimbale S. M.\* and Ghute V. B. (2014). "A neural network scheme for process monitoring", *International Conference on Statistics and Information Technology for Growing Nation* organized by Sri Venkateswara University Tirupati during November 30-December 02, 2014.
- Zombade D. M.\* and Ghute V. B. (2014). "Nonparametric control charts for monitoring the process dispersion", *National Conference on Applied Statistics*

*and Related Working Practices* organized by North Maharashtra University, Jalgaon during 30-31 January 2014.

- Ghute V. B. (2015). "Improved control charts for process dispersion", *International Conference on Mathematical Sciences* organized by S.G.M. College Karad during 15-16 September 2015.
- Zombade D. M.\* and Ghute V. B. (2015). "Nonparametric CUSUM chart for location", *International Conference on Mathematical Sciences* organized by S.G.M. College, Karad during 15-16 September 2015.
- Nimbale S. M.\* and Ghute V. B. (2015). "Shift detection of nonparametric signed-rank control chart using artificial neural network", *International Conference on Mathematical Sciences* organized by S.G.M. College, Karad during 15-16 September 2015.
- Rajmanya S. V.\* and Ghute V. B. (2015). "EWMA-D control chart for monitoring variability", *International Conference on Celebrating Statistical Innovation and Impact in a World of Big and Small data* organized by S. P. Pune University Pune during 24-25 December 2015.
- Nimbale S. M.\* and Ghute V. B. (2015). "Neural network control chart for monitoring individual measurements", *9<sup>th</sup> Conference of the International Association of Statistical Computing Asian Regional Section* organized by National University of Singapore during 17-19 December 2015.
- Nimbale S. M.\* and Ghute V. B. (2015). "Artificial neural network model for monitoring fraction nonconforming control chart", *National Conference on Knowledge Innovation and Engineering* organized by Kruti Institute of Technology and Engineering,, Raipur during 10-11 April 2015.
- Rajmanya S. V.\* and Ghute V. B. (2015). "CUSUM control chart for monitoring process variability", *National Seminar on Recent Developments in Applied Statistics* organized by Balwant College, Vita during 25-26 September 2015.
- Zombade D. M.\* and Ghute V. B. (2015). "A new nonparametric control chart for process location", *National Seminar on Recent Developments in Applied Statistics* organized by Balwant College, Vita during 25-26 September 2015.
- Nimbale S. M.\* and Ghute V. B. (2015). "An artificial neural network approach to nonparametric control charts", *National Seminar on Recent Developments in Applied Statistics* organized by Balwant College, Vita during 25-26 September 2015.
- Rajmanya S. V.\* and Ghute V. B. (2016). "EWMA control chart for variability", *National Conference on Applied Statistics* organized by Shivaji University, Kolhapur during March 11-12 March 2016.
- Nimbale S. M.\* and Ghute V. B. (2016). "Artificial neural network scheme for EWMA chart", *National Conference on Applied Statistics* organized by Shivaji University, Kolhapur during 11-12 March 2016.



- Dargopatil P. M.\* and Ghute V. B. (2017). “Effect of autocorrelations on performance of the S chart”, *National Conference on Applied Statistics and Informatics* organized by Shivaji University, Kolhapur during 10-11 March 2017.
- Dargopatil P. M.\* and Ghute V. B. (2017). “Effect of autocorrelations on synthetic S chart for process variability”, *National Conference in Statistics and Their Applications to Society* organized by Department of Statistics, Savitribai Phule Pune University, Pune during 23-25 March 23-25, 2017.
- Ghute V. B. (2018). “Synthetic R chart for monitoring variability of autocorrelated process”, *International Conference on Theory and Applications of Statistics and Information Sciences* organized by Bharathiar University, Coimbatore during 5-7 January 2018.
- Dargopatil P. M.\* and Ghute V. B. (2018). “Performance of D chart for monitoring the dispersion of autocorrelated process “*International Conference on Theory and Applications of Statistics and Information Sciences* organized by Bharathiar University, Coimbatore during 5-7 January 2018.
- Deshpande M. M.\* and Ghute V. B. (2018). “Comparison of process capability indices under AR(2) process “*International Conference on Theory and Applications of Statistics and Information Sciences* organized by Bharathiar University, Coimbatore during 5-7 January 2018.
- Kapase R. A.\* and Ghute V. B. (2018). “Estimating the time of a step change with Tukey’s control chart “*International Conference on Theory and Applications of Statistics and Information Sciences* organized by Bharathiar University, Coimbatore during 5-7 January 2018.
- Ghute V. B. (2018). New control chart for monitoring process variability using auxiliary information, “*9th International Conference on Quality, Reliability, Infocom Technology and Business Operations*”, organized by University of Delhi, Delhi during 27-29 December 2018.
- Gardi C. G.\* and Ghute V. B. (2018). A new control chart for monitoring process mean based on order statistics, “*9th International Conference on Quality, Reliability, Infocom Technology and Business Operations*”, organized by University of Delhi, Delhi during 27-29 December 2018.
- Kapase R. A.\* and Ghute V. B. (2018). Identifying the time of step change in the process mean with EWMA control chart, “*9th International Conference on Quality, Reliability, Infocom Technology and Business Operations*”, organized by University of Delhi, Delhi during 27-29 December 2018.
- Ghadage V. K. and Ghute V. B. (2018). Nonparametric control chart for joint monitoring, “*9th International Conference on Quality, Reliability, Infocom Technology and Business Operations*”, organized by University of Delhi, Delhi during 27-29 December 2018.
- Kapase R. A.\* and Ghute V. B. (2018). “Identifying the time of step change with individual control chart”, *National Conference for Women in Statistics and*

*Analytics” organized by Savitribai Phule Pune University, Pune during 14-16 February 2018.*

- Dargopatil P. M.\* and Ghute V. B. (2018). “Performance analysis of bivariate |S| chart in the presence of autocorrelation”, Nonparametric synthetic control charts for bivariate process location”, *National Seminar on Statistical Modelling and Applications” organized by Shivaji University, Kolhapur during 23-24 February 2018.*
- Gardi C. G.\* and Ghute V. B. (2018). “New synthetic control chart for bivariate process”, *National Seminar on Statistical Modelling and Applications” organized by Shivaji University, Kolhapur during 23-24 February 2018.*
- Kapase R. A.\* and Ghute V. B. (2018). “Identifying the change point with statistical control chart based on exponential distribution”, *National Seminar on Statistical Modelling and Applications” organized by Shivaji University, Kolhapur during 23-24 February 2018.*
- Deshpande M. M.\* and Ghute V. B. (2018). “Process capability analysis for autocorrelated data”, *National Seminar on Statistical Modelling and Applications” organized by Shivaji University, Kolhapur during 23-24 February 2018.*
- Deshpande M. M.\* and Ghute V. B. (2019). A model-free approach to reduce the effect of autocorrelation on process capability indices, “*International Conference on Computer Age Statistics in the era of Big and High Dimensional Data*”, organized by Savitribai Phule Pune University Pune during 3-5 January 2019.
- Raut Y. G.\* and Ghute V. B. (2019). Challenges of sample size in the design and analysis of clinical trials: A review article, “*National Conference on Recent Advances in Statistics and their Applications to the Society*” organized by New Arts, Commerce and Science College Ahmednagar during 17-18 January 2019.
- Kapase R. A.\* and Ghute V. B. (2020). Identifying the time of step change in the process mean with moving average control chart, “*International Conference on Importance of Statistics in Global Emerging Scenario*” organized by Savitribai Phule Pune University Pune, during 02-04 January 2020.
- Deshpande M. M.\* and Ghute V. B. (2020). Bootstrap confidence interval for process capability indices (PCIs), “*International Conference on Importance of Statistics in Global Emerging Scenario*” organized by Savitribai Phule Pune University Pune, during 02-04 January 2020.
- Gardi C. G.\* and Ghute V. B. (2020). Control chart using extreme ranked set sampling, “*National seminar on Advances in Statistical Modeling and Inference*” organized by Shivaji University, Kolhapur during 14-15 February 2020.
- Deshpande M. M.\* and Ghute V. B. (2020). “Process capability indices for shape parameter of Weibull distribution”, *National Seminar on Advances in Statistical Modelling and Inference” organized by Shivaji University, Kolhapur during 14-15 February 2020.*

- Gardi C. G.\* and Ghute V. B. (2020). Synthetic control chart using Downton's estimator based on ranked set sampling, "*International Virtual Conference on Prof. C. R. Rao's School of Thought on Statistical Sciences*" organized by Pondicherry University, Pondicherry during 21-29 November 2020.
- Ghadage V. K.\* and Ghute V. B. (2020). A distribution-free Lepage type control chart for joint monitoring of location and scale parameters, "*International Virtual Conference on Prof. C. R. Rao's School of Thought on Statistical Sciences*" organized by Pondicherry University, Pondicherry during 21-29 November 2020.
- Deshpande M. M.\* and Ghute V. B. (2020). Estimation of process capability indices in case of non-normal distribution, "*International Virtual Conference on Prof. C. R. Rao's School of Thought on Statistical Sciences*" organized by Pondicherry University, Pondicherry during 21-29 November 2020.
- Kapase R. A.\* and Ghute V. B. (2020). Identifying the time of step change in the process mean with AR(1) process, "*International Virtual Conference on Prof. C. R. Rao's School of Thought on Statistical Sciences*" organized by Pondicherry University, Pondicherry during 21-29 November 2020.
- Pawar S. A.\* and Ghute V. B. (2020). Moving average control chart for monitoring process mean using auxiliary information, "*International Virtual Conference on Prof. C. R. Rao's School of Thought on Statistical Sciences*" organized by Pondicherry University, Pondicherry during 21-29 November 2020.
- Gardi C. G.\* and Ghute V. B. (2021). Run chart based on D statistics under ranked set sampling, "*National e-conference on Recent Advances in Applied Statistics*" organized by Punyashlok Ahilyadevi Holkar Solapur University Solapur on 24 April 2021.
- Kapase R. A.\* and Ghute V. B. (2021). Estimating the time of step change in process parameter of AR (1) process, "*National e-conference on Recent Advances in Applied Statistics*" organized by Punyashlok Ahilyadevi Holkar Solapur University Solapur on 24 April 2021.
- Deshpande M. M.\* and Ghute V. B. (2021). Bootstrap confidence interval for process capability indices, "*National e-conference on Recent Advances in Applied Statistics*" organized by Punyashlok Ahilyadevi Holkar Solapur University Solapur on 24 April 2021.
- Ghadage A. K.\* and Ghute V. B. (2021). Distribution-free Lepage type EWMA control chart for joint monitoring of location and scale, "*National e-conference on Recent Advances in Applied Statistics*" organized by Punyashlok Ahilyadevi Holkar Solapur University Solapur on 24 April 2021.
- Raut Y. G.\* and Ghute V. B. (2021). Sample size calculation in clinical trial studies, "*National e-conference on Recent Advances in Applied Statistics*" organized by Punyashlok Ahilyadevi Holkar Solapur University Solapur on 24 April 2021.
- Pawar S. A.\* and Ghute V. B. (2021). Runs-rules control chart for process mean using auxiliary information, "*National e-conference on Recent Advances in*

*Applied Statistics*” organized by Punyashlok Ahilyadevi Holkar Solapur University Solapur on 24 April 2021.

Note: \* indicates name of paper presenter in case of two authors.

### Chaired Session in Conferences / Seminars: 11

- *One Day Workshop on Revised Syllabus of Statistics for B.Sc. II and BCS-I* organized by Balwant College, Vita on 03 December 2009.
- *National Level Seminar on Recent Developments in Statistics and Quality Control* organized by K.B.P. Mahavidyalaya, Pandharpur during 26-27 August 2010.
- *National Seminar on Applications of Statistics to Various Fields* organized by Sangameshwar College, Solapur during 4-5 January 2013.
- *National Conference on Current Practices in Mathematics, Statistics and Actuarial Science* organized by North Maharashtra University, Jalgaon during 7-8 March 2013.
- *National Conference on New Horizons of Statistics* organized by Solapur University, Solapur during 19-21 October, 2013.
- *International Conference on Recent Advances in Statistics and Their Applications* organized by Dr. B. A. M. University Aurangabad during December 26-28 December 2013.
- *International Conference on Mathematical Sciences* organized by S.G.M. College, Karad during 15-16 September 2015.
- *National Conference on Applied Statistics* organized by Shivaji University, Kolhapur during March 10-11 March 2016.
- *National Conference on Applied Statistics and Informatics* organized by Department of Statistics, Shivaji University, Kolhapur during 10-11 March 2017.
- *National Seminar on Statistical Modelling and Applications* organized by Shivaji University, Kolhapur during 23-24 February 2018.
- *9<sup>th</sup> International Conference on Quality, Reliability, Infocom Technology and Business Operations*, organized by University of Delhi, Delhi during 27-29 December 2018.
- *National Seminar on Advances in Statistical Modeling and Inference*, Organized by Shivaji University Kolhapur during 14-15 February 2020.

### Guest Lectures at Colleges and Universities: 10

- Delivered expert lecture on “Methods of Estimation”, *NET / SET Coaching in Statistics* at Shivaji University, Kolhapur on 18 February 2012.
- Delivered invited talk on “Industrial Statistics”, *National Statistics Day* at District Statistical Office, Solapur on 29 June 2012.

- Delivered expert lecture on “Research Methodology”, in *Special Summer School Programme* organized by Academic Staff College, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad on 27 July 2012.
- Delivered expert lecture on “Statistical Analysis and Research” in *Short term course on faculty development program* organized by B. K. D. Mahavidyalaya, Chakur Dist. Latur on 19 October 2014.
- Delivered series of lectures on “Bayesian Inference” for M.Sc. Statistics students during 19-20 October 2015 at Shivaji University, Kolhapur.
- Delivered guest lecture on “Industrial Statistics” for M.Sc. Statistics students at Yashavantrao Chavan Institute of Science Satara on 31 January, 2016.
- Delivered lecture on “Testing of Hypothesis” in two day camp for B. Sc. II Statistics students organized by SUSTA and S. G. M. College, Karad on 9-10 January 2016.
- Delivered lecture on “Job Opportunities in Statistics” for B.Sc. Statistics students at Karmaveer Bhaurao Patil Mahavidyalaya, Pandharpur on 14 February 2017.
- Delivered Inaugural Speech as Chief Guest in National Conference on Statistics in Social Science Research organized by Kasturbai College of Education Solapur on 26 February 2018.
- Delivered Special Lectures on “Statistical Quality Control” under special lecture series organized by Department of Studies in Statistics, Karnatak University, Dharwad on 21 March 2018.