

# **RESUME**

## **INTRODUCTION**



**Dr. Sukhraj Singh**

**Ph.D. (Mechanical Engg.)**

**Designation: - ASSOCIATE PROFESSOR & HEAD,  
DEPTT. OF MECHANICAL ENGG.,  
LYALLPUR KHALSA COLLEGE OF ENGINEERING, JALANDHAR**

**Specialization: - QUALITY CONTROL**

**Contact Information:- Department of Mechanical Engineering, Lyallpur Khalsa College of Engineering, Jalandhar, Punjab, India.**

**E-mail:- [sukhraj7in@yahoo.co.in](mailto:sukhraj7in@yahoo.co.in), [1981cc@gmail.com](mailto:1981cc@gmail.com)**

**Contact No. :- 9988129596**

## **PERSONAL PROFILE**

**Father's Name:-Er. (Retd). Darshan Singh**

**Mother's Name:-Mrs. Amarjit Kaur**

**Date of Birth: - 13<sup>th</sup> May, 1981**

**Nationality: - Indian**

**Gender: - Male**

**Aadhar Card No.: - 7691 2295 2189**

**Correspondence Address:** - Green Estate, Street No. 3, Ward No. 24, Khanna Khurd Road, Khanna – 141401, Punjab.

## **QUALIFICATIONS**

**2009 – 2013:** Ph.D. - Mechanical Engineering

PEC University of Technology, Chandigarh, India.

**2004 – 2006:** M.E. - Production Engineering with specialization in C.I.M.

PEC University of Technology, Chandigarh, India.

**1999 – 2003:** B.Tech. - Mechanical Engineering

Dr. B. R. Ambedkar N.I.T Jalandhar, Punjab, India.

**1997-1999:** Higher Secondary, CBSE, B.C.M Arya Model Sr. Sec. School, Shastri Nagar, Ludhiana, Punjab.

**1996-1997:** Matriculation, PSEB, R. S. Model Sr. Sec. School, Shastri Nagar, Ludhiana, Punjab.

## **DISSERTATION TOPICS:-**

Ph.D. - Design of Quality Control Charts for Autocorrelated Data.

M.E. - Drilling of GFRP Laminate and Optimizing the Drilling Parameters.

## **PROJECTS DURING B.TECH:-**

- Implementation of ISO 9000 Series of Standards at the vendors of Majestic Auto Limited.  
(Six Months Industrial Training)
- Fabrication of Pneumatic-Conveyor (Major Project in Final Year).

## **SUBJECTS STUDIED DURING Ph.D.**

- Design Planning and Control of Production Systems (Got Grade ‘A’)
- Advanced Manufacturing Processes (Got Grade ‘A’)

- Design of Experiments and Research Methodology (Got Grade ‘B’)
- Manufacturing Processes (Got Grade ‘A’)
- Production and Operations Management (Got Grade ‘A’)
- Industrial Quality Control (Attended classes for knowledge purpose)

## WORK EXPERIENCE

- 10<sup>th</sup> June 2006 – 20<sup>th</sup> Feb. 2009: Worked as a Lecturer in the Deptt. of Mechanical and Automobile Engg. at Ludhiana College of Engineering & Technology (L.C.E.T), Katani Kalan, Ludhiana, Punjab.
- Feb 2009 - June 2012: Research Scholar in the Deptt. of Mechanical Engineering, PEC University of Technology, Chandigarh.
- 23<sup>th</sup> July 2012 – 30<sup>th</sup> June 2014: Worked as an Asst. Prof. in the Deptt. of Mechanical Engineering at Baba Banda Singh Bahadur Engineering College (BBSBEC), Fatehgarh Sahib, Punjab.
- 1<sup>st</sup> July 2014 – 30<sup>th</sup> May 2015: Worked as an Associate Prof. in the Deptt. of Mechanical Engineering at Amritsar College of Engineering & Technology (AUTONOMOUS, NBA and NAAC ACCREDITED), Punjab, India.
- 1<sup>st</sup> July 2015 – Till Date: Working as an Associate Prof. & Head in the Deptt. of Mechanical Engineering at Lyallpur Khalsa College of Engineering, Jalandhar, Punjab, India.

## TOTAL WORK EXPERIENCE

Teaching	06 Years & 06 Months (Till 1 <sup>th</sup> July 2016)
Research	03 Years & 04 Months
Total	09 Years & 10 Months

## RESEARCH AREAS

Statistical Quality Control (SQC).

## SUBJECTS TAUGHT AT UG LEVEL

Automobile Engineering (AE), Internal Combustion (IC) Engines, Automotive Chassis and Components (ACC), Strength of Materials I (SOM-I), Manufacturing Processes I (MP- I), Manufacturing Processes II (MP- II), Machine Drawing (MD), Engineering Drawing (ED), Fluid Machinery, Fluid Mechanics (FM), Inspection and Quality Control (IQC) and Auto CAD.

## SUBJECTS TAUGHT AT PG LEVEL

Energy Management (EM) and Diagnostic Maintenance and Monitoring (DMM).

## SOFTWARE KNOWLEDGE

WINDOWS WORD, EXCEL (OPERATING SYSTEM), AutoCAD, MINITAB, MATLAB (SOFTWARES)

## PUBLICATIONS IN INTERNATIONAL JOURNALS:

1. **Singh, S.** and Prajapati, D. R. (2011), “Behavior of CUSUM chart for Autocorrelated Data”, *International Journal of Engineering Sciences and Research-IJESR*, Volume 2, Issue 4, pp. 1 – 8.
2. **Singh, S.** and Prajapati, D. R. (2012), “Effect of autocorrelation on the performance of EWMA chart”, *International Journal of Productivity and Quality Management*, Volume 9, No. 2, pp. 177 - 193.
3. Prajapati, D. R. and **Singh, S.** (2012), “Control charts for monitoring the autocorrelated process parameters: A literature review”, *International Journal of Productivity and Quality Management*, Volume 10, No. 2, pp. 207 - 249.
4. **Singh, S.** and Prajapati, D. R. (2013), “Detection of shift in process mean with  $\bar{X}$  chart for autocorrelated data”, *International Journal of Quality and Reliability Management (IJQRM)*, Volume 30, Issue 7, pp. 765 - 779.
5. **Singh, S.** and Prajapati, D. R. (2013), “Performance of CUSUM and EWMA chart for serial correlation”, *The TQM Journal*, Vol. 25 Issue 3, pp. 309 - 324.

6. Singh, S. and Prajapati, D. R. (2014), “Effect of warning limits on the performance of the  $\bar{X}$  chart under autocorrelation”, *International Journal of Productivity and Quality Management*, Volume 13, No. 2, pp. 235 - 250.
7. Prajapati, D. R. and Singh, S. (2014), “Optimal schemes of standard range chart for autocorrelated observations”, *International Journal of Quality Engineering and Technology*, Volume 4, No. 1, pp. 81 - 96.
8. Brar, G. S., Sekhon, M. S. and Singh, S. (2014), “A six sigma approach to detect forging defects in a small scale industry”, *International Journal of Engineering and Technical research*, NIT Jalandhar, Punjab, Volume 2, Issue 8, pp. 33 – 40.
9. Prajapati, D. R. and Singh, S. (2015), “Monitoring of process mean and variance simultaneously by joint  $\bar{X}$  and R chart for serial correlation”, *International Journal of Productivity and Quality Management*, Volume 16, No. 1, pp. 70 - 91.

## PUBLICATIONS IN NATIONAL JOURNALS:

10. Prajapati, D. R. and Singh, S. (2012), “Performance of traditional  $\bar{X}$  chart with correlated data”, *UDYOG PRAGATI - The Journal for Practising Managers*, Vol. 36, No. 2, pp. 34-41.
11. Prajapati, D. R. and Singh, S. (2013), “Effect of sample size on  $\bar{X}$  chart for correlated data”, *The IUP Journal of Mechanical Engineering*, Vol. VI, No. 1, pp. 53-65.

## PUBLICATIONS IN INTERNATIONAL CONFERENCES:-

12. Arora, R. K., Prajapati, D. R. and Singh, S. (2010), “Implementation of Taguchi Methodology in Automotive Process Industry”, *Proceedings of 2<sup>nd</sup> International Conference on Production and Industrial Engineering (CPIE-2010)*, NIT Jalandhar, Punjab, December 3 – 5, , pp. 1428 –1434.
13. Singh, S. and Prajapati, D. R. (2011), “Average Run Lengths of  $\bar{X}$  Chart with Positively Correlated Observations”, *Proceedings of International Conference in Industrial Engineering and Systems Management (ICIISM 2011)*, Paris, France, July 27 – 29, pp. 1237 –1241.
14. Singh, S. and Prajapati, D. R. (2011), “Deterioration of Performance of CUSUM and  $\bar{X}$  Chart in the Presence of Autocorrelation”, *Proceedings of International Conference on*

*Sustainable Manufacturing (ICSM2011)*, BITS Pilani, Rajasthan, November 10 – 12, pp. 195 –200.

15. Prajapati, D. R. and Singh, S. (2013), “Design of Optimal Schemes for Traditional  $\bar{X}$  Chart for Serial Correlation”, *Proceedings of 3<sup>rd</sup> International Conference on Production and Industrial Engineering (CPIE-2013)*, NIT Jalandhar, Punjab, March 29 – 31, pp. 1412 – 1416.
16. Singh, S. and Sekhon, M. S. (2013), “Exhaust emission control techniques for diesel engine vehicles: A literature review”, *Proceedings of 3<sup>rd</sup> International Conference on Production and Industrial Engineering (CPIE-2013)*, NIT Jalandhar, Punjab, March 29 – 31, pp. 1511 – 1518.

## **PUBLICATIONS IN NATIONAL CONFERENCES:-**

17. Pawar, V., Prajapati, D. R. and Singh, S. (2010), “Application of work study techniques in forging industries: A case study”, *2<sup>nd</sup> National Conference on Precision Manufacturing (NCPM)*, SLIET, Longowal, Sangrur, March 26-27.
18. Pawar, V., Prajapati, D. R. and Singh, S. (2010), “Application of work measurement techniques in process industries: A case study”, *2<sup>nd</sup> National Conference on Precision Manufacturing (NCPM)*, SLIET, Longowal, Sangrur, March 26 - 27.
19. Singh, S. and Prajapati, D. R. (2010), “Quality in health care: a literature review” *Proceedings of Recent Trends in Mechanical and Automobile Engineering (RTMA)*, LCET Katani Kalan, Ludhiana, Punjab, August 20 - 21.
20. Singh, S. and Prajapati, D. R. (2011), “The behavior of  $\bar{X}$  chart with autocorrelation”, *Proceedings of First National conference on Advances in Mechanical Engineering (NCME-2011) 20<sup>th</sup> to 21<sup>st</sup> May 2011*, pp. 246 – 250.
21. Singh, S. and Prajapati, D. R. (2011), “Role of artificial neural networks (ANNs) in the pattern recognition of the control charts”, *Proceedings of First National conference on Advances in Mechanical Engineering (NCME- 2011) 20<sup>th</sup> to 21<sup>st</sup> May 2011*, pp. 217 – 220.

## **WORKSHOPS & COURSES ATTENDED**

- Did course on AutoCAD at Ludhiana.
- Attended workshop on “Teaching Methodology” at LCET Katani Kalan Ludhiana.
- Attended Short Term Course on “Six Sigma and Research Methodology” held on 20<sup>th</sup> - 24<sup>th</sup> December 2010 at PEC University of Technology, Chandigarh.
- Attended Short Term Course on “MATLAB Programming” held on 21<sup>th</sup> - 25<sup>th</sup> November 2011 at National Institute of Technical Teacher’s Training and Research (NITTTR), Sector - 26, Chandigarh.

## **EXPERT TALKS & GUEST LECTURES**

- Delivered Tutorial on “Introduction to the MINITAB software (Practice)” in the Short Term Course on “Six Sigma and Research Methodology” held on 20<sup>th</sup>-24<sup>th</sup> December 2010 at PEC University of Technology, Chandigarh.

## **RESEARCH PROJECTS & PATENTS**

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## **ACHIEVEMENTS & AWARDS**

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## **ADMINISTRATIVE & OTHER ACTIVITIES**

- Assisted Deputy Superintendent (External Exams) during P.T.U End Semester Exams in December 2009 at L.C.E.T Katani Kalan Ludhiana.
- Helped in organizing the Job Fair 2008 at L.C.E.T Katani Kalan Ludhiana.
- Helped in organizing the Short Term Course on “Six Sigma and Research Methodology” held on 20<sup>th</sup> - 24<sup>th</sup> December 2010 at PEC University of Technology, Chandigarh.

## **Ph.D. THESIS GUIDED BY**

- **Dr. D. R. Prajapati**  
Associate Prof.  
Deptt. of Mechanical Engg.  
PEC University of Technology  
Chandigarh

## **P.G. THESIS GUIDED BY**

### **M.E. Thesis Guided by**

- **Dr. Suman Kant**  
Asst. Prof.  
Deptt. of Production Engg.  
PEC University of Technology  
Chandigarh

## **OTHER REFERENCES**

- **Dr. P. B. Mahapatra**  
Prof. & Ex. H.O.D  
Deptt. of Mechanical Engg.  
PEC University of Technology  
Chandigarh
- **Dr. V. P. Singh**  
Associate Prof. & Ex. H.O.D.  
Deptt. of Mechanical Engg.  
PEC University of Technology  
Chandigarh



- **Dr. P. S. Satsangi**  
Associate Prof.  
Deptt. of Mechanical Engg.  
PEC University of Technology  
Chandigarh
- **Dr. Alakesh Manna**  
Associate Prof. & Head  
Deptt. of Mechanical Engg.  
PEC University of Technology  
Chandigarh
- **Dr. Sanjeev Kumar**  
Associate Prof.  
Deptt. of Mechanical Engg.  
PEC University of Technology  
Chandigarh

**I hereby declare that the above mentioned information is correct up to my knowledge & I bear the responsibility for the authenticity of the above mentioned particulars.**

**Date:**

**Place:**

**(Dr. Sukhraj Singh)**