Dr. Narpat Ram Sangwa

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Operations and Supply Chain Management
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EDUCATION

- **Doctor of Philosophy (PhD),** Specialization- Lean Manufacturing, 2019.
  Birla Institute of Technology and Science (BITS), Pilani, Rajasthan, India
- **Master of Technology (M.Tech.)**, Specialization – Manufacturing System Engineering, 2012.
  Malaviya National Institute of Technology - [MNIT], Jaipur, Rajasthan, India
- **Bachelors of Engineering (B.E.)** in Mechanical Engineering, 2009.
  University of Rajasthan (RU), Jaipur, Rajasthan, India

EXPERIENCE SUMMARY

Administrative Responsibility

- HOD, Mechanical Engineering, and Academic Coordinator at Manda Institute of Technology, Bikaner, Rajasthan from March 2019 – February 2021.
- HOD, Mechanical Engineering, and Academic Coordinator at Manda Institute of Technology, Bikaner, Rajasthan from June 2012 – January 2014.

Teaching and Research Experience (Total– 9.5 years)

Research

- **Post-Doctoral Research Associate (PDRA),** presently working under a project entitled "Transforming India's Green Revolution by Research and Empowerment for Sustainable food Supplies (TIGR^{2}ESS)" at Indian Institute of Technology Ropar from February 2021 to January 2022. This is a joint project of **University of Cambridge, UK and IIT Ropar, India**.
- Research Scholar, BITS Pilani, Rajasthan, India, January 2014 – February 2019.
- Visiting Scholar, Institute of Machine Tools and Production Technology, **Technical University (TU), Braunschweig, Germany**, December 2015 – January 2016.

Teaching

- Assistant professor in Mechanical Engineering Department, Manda Institute of Technology, Bikaner, Rajasthan, March 2019 –February 2021.
- Assistant professor in Mechanical Engineering Department, Manda Institute of Technology, Bikaner, Rajasthan, June 2012 –January 2014.

- Guest Lecturer in Mechanical Engineering Department, M.L.V. Textile & Engineering College, Bhilwara, Rajasthan, India, September 2009 –July 2010.

Teaching subjects

- Operations Management
- Supply Chain Management
- Quality Management and Six Sigma

KEY SKILLS

- Knowledge of Leanness Assessment.
- Knowledge of Sustainability Assessment
- Knowledge of Life Cycle Assessment Using Umberto and GaBi Software
- Knowledge of Various Multi Criteria Decision Making (MCDM) Techniques such as AHP, ANP, ISM, IRP, Etc.
- Knowledge of Fuzzy Topsis Technique

AWARDS AND HONORS

- Awarded with the Lean Six Sigma Green Belt by KPMG.
- Awarded Postdoctoral Fellowship by the United Kingdom Research and Innovation (UKRI), UK from February 2021 to till date
- Awarded German Academic Exchange Service (DAAD) fellowship for the research visit at Institute of Machine Tools and Production Technology, Technical University (TU), Braunschweig, Germany, December 2015 – January 2016.
- Awarded NCC "C" Certificate by National Cadet Corps in 2009.

PROJECTS UNDERTAKEN

- Industrial training project – "Productivity and quality improvement through leanness assessment as a tool of operations management" in Sona Koyo Steering Systems Limited, Sanand, Gujrat, 18 July 2017 – 23 December 2017.
- Ph.D. Thesis Title – Development of an Integrated Performance Measurement Framework for Leanness Assessment of Manufacturing Organizations.
- Master's Dissertation Title – Ergonomic Intervention in Blue Pottery Handicraft Operation.

PUBLICATIONS

Peer reviewed Journals

- Sangwa, N.R. and Sangwan, K.S., 2022a. Leanness assessment of a complex assembly line using integrated value stream mapping: a case study. The TQM Journal, Vol. ahead-of-print No. ahead-of-print. https://doi.org/10.1108/TQM-12-2021-0369
- Sangwa, N.R. and Sangwan, K.S., 2022b. Prioritization and ranking of lean practices: a case study. International Journal of Productivity and Performance Management, Vol.

ahead-of-print No. ahead-of-print. https://doi.org/10.1108/IJPPM-04-2021-0214

- Choudhary, K., Sangwa, N.R., Sangwan, K.S. and Singh, R.K., 2022. Impact of Lean and Quality Management Practices on Green Supply Chain Performance: an Empirical Study on Ceramic Enterprises. Quality Management Journal, 29(3), 192-211.
- Paidipati, K.K., Banik, A., Shah, B. and Sangwa, N.R., 2022. Forecasting of Sugarcane Productivity Estimation in India-A Comparative Study with Advanced Non-Parametric Regression Models. Journal of Algebraic Statistics, 13(2), 760-778.
- Sangwa, N.R. and Sangwan, K.S., 2020. Continuous Kaizen Implementation to Improve Leanness: A Case Study of Indian Automotive Assembly Line. In Enhancing Future Skills and Entrepreneurship (pp. 51-69). Springer, Cham.
- Sangwa, N.R. and Sangwan, K.S., 2018a. Development of an integrated performance measurement framework for lean organizations. Journal of Manufacturing Technology Management, 29(1), 41-84.
- Sangwa, N.R. and Sangwan, K.S., 2018b. Leanness assessment of organizational performance: a systematic literature review. Journal of Manufacturing Technology Management, 29(5), 768-788.

Book Chapter

- Sangwa, N.R. and Sangwan, K.S., 2020. Continuous Kaizen Implementation to Improve Leanness: A Case Study of Indian Automotive Assembly Line. In Enhancing Future Skills and Entrepreneurship (pp. 51-69). Springer, Cham.

Conference Papers

- Trehan, R., Sangwan, K. S., Singh, P., Sangwa, N. R., 2021. “Enhanced sensor and improved connectivity as key enablers of industry 4.0”, 9th International Conference on Advancements and Futuristic Trends in Mechanical and Materials Engineering (AFTMME-2021), December 09-11, IIT Ropar.
- Sangwa, N. R., Choudhary, K., Sangwan, K. S., Bhagwat, R., 2017. “Leanness Assessment using Value Stream Mapping (VSM): A Case Study of Indian SSI”, Joint Indo – German Conference on Sustainable Engineering (JIGCSE-2017), September 15-16, BITS Pilani
- Sangwa, N. R., Choudhary, K., Sangwan, K. S., 2015. “Performance Evaluation Framework for Lean Manufacturing-A Review”, National Conference on Sustainable Manufacturing (NCSM-2015), January 2-3, MNIT Jaipur
- Sangwa, N. R. & Meena M. L., (2012), "Ergonomics Hazards and Working Conditions among Blue Pottery Workers in Jaipur", National Conference on Energy Efficient System Design and Manufacturing (NCEESDM-2012), March 30-31, VIT Jaipur

CONFERENCES AND WORKSHOPS

- Convened a two days National Conference on "Advancement in Applied Science and Engineering", dated from February 7 -8, 2020.
- Convened a one-day International Seminar on "Basics of Fluid Mechanics for Food Processing", dated on December 04, 2019.

- Convened a one-day National Workshop on "Renewable Energy Sources and Environmental Impact", Dated on October 22, 2019.
- Member of organizing committee and participated in the “6th Indo-German workshop on Sustainable Manufacturing & Entrepreneurship” jointly organized by BITS Pilani and Technical University Braunschweig, Germany on September 17-18, 2018.
- Member of organizing committee and participated in the “Indo-German conference on Sustainable Engineering” jointly organized by BITS Pilani and Technical University Braunschweig, Germany on September, 16-17, 2017.
- Member of organizing committee and participated in the “4th Indo-German workshop on Sustainable Engineering” jointly organized by BITS Pilani and Technical University Braunschweig, Germany on September, 17-18, 2016.
- Member of research scholar committee and participated in the “3rd Indo-German workshop on Sustainable Engineering” jointly organized by BITS Pilani and Technical University Braunschweig, Germany on November, 03-04, 2015.
- Participated in the workshop “Data Analytics and using R for Statistical Analysis” organized by BITS Pilani on November, 22-23, 2014.

RESEARCH INTEREST

- Sustainable Supply Chain Management
- Operations Management
- Lean Manufacturing
- Sustainability
- Life Cycle Assessment
- Ergonomics

PG DISSERTATION SUPERVISED

S. No.	Title of Dissertation/Project	Department/ Institute	Name of student[s]	Co-Supervisor	Year
1.	Optimizing the Performance of Earth Air Tunnel Heat Exchanger for Western Region of Rajasthan	ME/ MIT Bikaner	Khushaboo Qureshi 16E2MDREF30P602	Dr. Y.B. Mathur	2020
2.	Performance and Emission Assessment of Compression Ignition Engine using blends of Thumba Biodiesel with Diesel	ME/ MIT Bikaner	Nirupa Jain 18E2MDREF40P600	Dr. Y.B. Mathur	2020
3.	Modelling and Simulation of an Active Cooling System for Rooftop Photovoltaic Panels	ME/ MIT Bikaner	Neelam Chouhan 17E2MDREF30P600	Dr. Sanjeev Jakhar	2021

PROFICIENCY

- Languages – English, Hindi
- Software – Umberto, GaBi, SPSS, AMOS, Simufact, e-VSM, Microsoft Visio.
- Operating System – Windows XP, Windows 7 & 10.

DECLARATION

I do hereby declare that the particulars and facts stated herein above are true, correct and complete to the best of my knowledge and belief.

(Narpat Ram Sangwa)