

Dr. Sandhya Dixit

[H. No. 1013, Sector-8, Faridabad, Haryana, INDIA]
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Qualifications

[2019]	Ph D MECHANICAL ENGINEERING J C Bose University of Science and Technology, YMCA, Haryana
[2008]	M. Tech (First Division with Honors, Batch Topper) MANUFACTURING TECHNOLOGY AND AUTOMATION YMCA Institute of Engineering, Maharishi Dayanand University, Rohtak, Haryana
[2001]	B. E. (First Division with Honors, III Position in Batch) (MECHANICAL ENGINEERING) National Institute of Technology, Kurukshetra
[1998]	Diploma (First Division with Honors, II Position in State) MECHANICAL ENGINEERING Govt Polytechnic Nilokheri

Experience

[Feb 2022 – till date]	Professor Mechanical Engineering Dept. J C Bose University of Science and Technology, YMCA, Fridabad, Haryana
[Feb 2019 – Feb 2022]	Associate Professor Mechanical Engineering Dept. J C Bose University of Science and Technology, YMCA, Fridabad, Haryana
[Jan 2006 – Feb 2019]	Assistant Professor Mechanical Engineering Dept. J C Bose University of Science and Technology, YMCA, Fridabad, Haryana
[Sept 2001 – Aug 2005]	Lecturer Mechanical Engineering Dept. DIET, Karnal
[April 1998- July 1998]	Workshop Instructor Govt Polytechnic, Nilokheri

Responsibilities at University / Department Level

- Coordinator MERITE Scheme
 - Editor J. C. Bose UST e-Journal
 - Member Academic Council, JCBUST, YMCA, Faridabad
 - Member BOF, Faculty of Engineering and Technology, JCBUST, YMCA, Faridabad
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- Member Vigilance Cell
- Member BOS, ME, JCBUST, YMCA, Faridabad
- Member BOS, Centre of Energy studies, JCBUST, YMCA, Faridabad
- Member Departmental Research Committee (DRC)
- Member RAC of Mechanical, Civil and JMC departments
- Departmental Academic Coordinator
- Departmental Library Coordinator

Responsibilities/positions held in the past at University/ Department Level

- Chief Hostel Warden (Girls) Hostel (Feb, 2019 - Oct, 2022)
 - Member Internal Complaints Committee (Women Cell), JCBUST, YMCA, Faridabad (Dec, 2020 – Mar, 2023)
 - Member Proctoral Committee, (Feb, 2019 - Oct, 2022)
 - Member Court, JCBUST, YMCA, Faridabad till Aug 2020
 - Member BOS, Community College JCBUST, YMCA, Faridabad
 - Departmental BOF Coordinator (Upto Aug 2018)
 - Departmental M.Tech Coordinator till 2020
 - NAAC Cycle II Accreditation, 2022, Central Committee- Criteria 6 Coordinator, Presentation Team
 - NAAC Cycle I Accreditation, 2016, Central Committee - Criteria 2 : TLR, Presentation Team
 - Centre Superintendent in University Final Examinations
 - Member, Committee for proposing the Strategic plan of the University as “VISION 2030”
 - Member Various Purchase committees
 - Lab Incharge Applied Thermodynamics Lab
 - Lab Incharge BME Lab (upto April 2017)
 - Member University Academic Ordinances formulation committee
 - NBA Visit (UG as well as PG)
 - Member M.Tech Admission Committee
 - Member B.Tech Admission (I Sem and LEET) Committee
 - Member PhD Admission Committee
 - Departmental Coordinator AQAR (2017-18)
 - Member Organising Committee, CULMYCA
 - Member organising committee for 3-days programme on Entrepreneurship Awareness Camp (09.10.2017 to 11.10.2017)
 - Member organising committee, Science Conclave-2017
 - Member organizing committee for Two week FDP on ‘Entrepreneurship: An Effective Tool to Improve Industry- Institute Interaction from 07-20 Dec 2017
 - Member Organizing Committee ‘MSME Conclave 2018’
 - Member Organizing Committee ‘Industrial Conclave 2018’
 - Member Organizing Committee ‘TAME 2019’
 - Member organising Committee for 3 days Entrepreneurship Awareness Camp. (14.11.2018 to 16.11.2018)
 - Training and Placement Duties for smooth conduct of Placement activities
 - Anti Ragging Duties
 - Member organizing committee, 8th International symposium on ISFT’ 20 from 06.01.2020 to 10.01.2020
 - Member organizing committee in FDP on Research in Modern Era from 01.06.2020 to 05.06.2020
 - Member organizing committee in STTP on ‘Advances in Manufacturing Technology: CNC and Robotics from 17.08.2020 to 22.08.2020.
 - Convener ‘Celebration of National Technology Day 2022’
 - Convener ‘Yoga Camp in University, 2022’
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- Member organising Committee TEQIP-III STC on 'Supply Chain Management, 2021
- Member Organizing Committee 'TAME 2021'

Research Guidance

PhD :

- In progress : 2

M. Tech :

- Successfully supervised : 17

Projects and Consultancy:

Applied for a project titled "Computational Analysis of the Ecological Impact of Non- Ionizing Radiations" under CSIR-ASPIRE (Women Scientist Scheme) amounting 30.5 Lakh

Publications

- **International Journals** : **15**
- **International Conferences** : **01**
- **National Conferences** : **08**
- **Total Papers indexed on**
 - Clarivate Analytics (SCI/SCIE/ESCI) : **3**
 - Scopus : **6**
 - Google Scholar : **7**

List of Papers (International Journals)

- [1] Sandhya Dixit, Tilak Raj, "Identification and modelling of the various factors affecting the productivity of FMS". *International Journal of Productivity and Quality Management*, Vol. 17, No. 3, pp. 353-379, March 2016. SCOPUS UGC 23394
 - [2] Sandhya Dixit, "Hardness Testing of Friction Stir Welded AA1200 Aluminium Alloy", *International Journal of Manufacturing Science and Engineering, Serials Publications Pvt Ltd.*, 8(1) 2017: January-June • pp. 17-21, Jan 2017.
 - [3] Mohit Yadav and Sandhya Dixit, "Modelling of the Various Flexibilities in a Flexible Manufacturing System, "*International Education and Research Journal*," Vol. 3, No. 6, pp. 241-243, June, 2017.
 - [4] Sandhya Dixit, Tilak Raj, "A TISM Model for Structuring the Productivity Elements of Flexible Manufacturing System", *World Academy of Science, Engineering and Technology, International Journal of Industrial and Manufacturing Engineering*, Vol.11, No.4, pp. 905-912, 2017. UGC 33105
 - [5] Ojha, V., Dixit, S. and Goyal, S., "Comparision of automated material handling system with human labour in FMS environment: Identification of core attributes", *International Journal of Management Technology and Engineering*, Vol, 8, No.5. pp. 2019-214, May, 2018. UGC 45550
 - [6] Sandhya Dixit, Tilak Raj, "Feasibility analysis of FMS in small and medium scale Indian industries with a hybrid approach using ISM and TOPSIS", *International Journal of Advanced Operations Management*, Vol. 10, No. 3, pp. 252-280, July 2018. SCOPUS, UGC 2502
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- [7] Sandhya Dixit; Tilak Raj, "A Hybrid MADM Approach for the Evaluation of Different Material Handling Issues in Flexible Manufacturing Systems", *Administrative Sciences*, Volume 8, Issue 4, 69, pp. 1-19., Nov, 2018. ESCI (Web of Science) Impact Factor 1.988
- [8] Sandhya Dixit, Vimlesh Kumar Ojha, "Review of different planning, design and operational issues of flexible manufacturing system", *International Journal of Management, Technology and Engineering*, Volume 8, Issue XI, pp. 359-368 Nov 2018. UGC 45550
- [9] Umesh Deswal, Sandhya Dixit and Sanjeev Goyal, "Identification of barriers to the successful implementation of VMI", *International Journal of Management, Technology and Engineering*, Volume 8, Issue XI, pp. 871-876, Nov 2018. UGC 45550
- [10] Devesh Kumar, Sanjeev Goyal and Sandhya Dixit, "Hierarchy model to measure performance of routing in FMS", *International Journal of Engineering Sciences Paradigms and Researches*, Volume 48, Special Issue, pp. 354-359, April 2019. UGC 42581
- [11] Pooja Rani, Sandhya Dixit, "Productivity Enhancement with Adoption of Advanced Automation Techniques: A case of Automobile Industry", *International Journal of Engineering Sciences Paradigms and Researches*, Volume 48, Special Issue, pp. 354-359, April 2019. UGC 42581
- [12] Vimlesh Kumar Ojha, Sandhya Dixit and Sanjeev Goyal, "An AHP-based comparison between automated and manual material handling systems in FMS environment", *International Journal of Productivity and Quality Management*, Vol.28, No. 2, pp. 256-277, Oct 2019. SCOPUS, UGC 23394
- [13] Sandhya Dixit, Tilak Raj "Quantifying the influence of FMS on the productivity of a firm", *International Journal of Process Management and Benchmarking*, Volume 9, Issue 4, pp. 447-468, Nov 2019. SCOPUS, UGC 23387
- [14] Arun Chandra Akriti, Sanjeev Goyal and Sandhya Dixit, "Loading Issues in FMS-Interpretive Structural Modeling," *Advances and Applications in Mathematical Sciences*, Vol. 20, No. 10, Aug 2021, pp. 2197-2213. ESCI (Web of Sciences) ISSN 0974-6803.
- [15] Sandhya Dixit, Suman Gothwal and Tilak Raj, "A LAPTOP methodology to evaluate the transition of CMS into FMS: a case study, *International Journal of System Assurance Engineering and Management*, DOI 10.1007/s13198-021-01224-6, pp. 516-534, Aug, 2021. ESCI (Web of Sciences) ISSN 0975-6809.

Books Published

- **Authored a Book titled:**
'Engineering Graphics and Machine Drawing' for UG Engineering students
 Publisher: Dhanpat Rai and Co. (ISBN No. 978-81-770-214-0)

FDPs/ STCs/ Workshops Attended

- One week FDP on 'Application of Artificial Intelligence Tools in Power, Department of Electrical Engg YMCAUST, Faridabad, from 19.06.2012 to 25.06.2012.
 - Two days Workshop on 'Research Techniques & MADM Approaches,' Department of Mech Engg YMCAUST, Faridabad, from 16.04.2013 to 17.04.2013.
 - Two weeks FDP on Emerging Trends in Engineering, Technology and Management (ETIETM'13), Department of Computer Engg YMCAUST, Faridabad, from 14.01.2014 to 15.01.2014.
 - ISTE approved One week STC on 'Effective Teaching and Research', MED, YMCAUST, Faridabad, from 07.07.2014 to 11.07.2014.
 - ISTE approved One week FDP on 'Soft Skills and Personality Development', Department of Management Studies, YMCAUST, Faridabad, from 15.07.2014 to 21.07.2014.
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- AICTE approved One week STC on 'IC Engines through ICT', NITTTR, Chandigarh, from 15.12.2014 to 19.12.2014.
- AICTE approved One week STC on 'Technical Teachers' Role, Self- Esteem, Motivation and Professionalism Development through ICT', NITTTR, Chandigarh, from 08.06.2015 to 12.06.2015.
- One week STC on 'Applied Research: Design and Execution', IIT, Roorkee, 15.06.2015 to 19.06.2015.
- One week STC on 'Disaster Mitigation and Management', NIT, Kurukshetra, from 22.06.2015 to 26.06.2015.
- AICTE recognized STC on 'Communication Skills through ICT', NITTTR, Chandigarh, from 11.01.2016 to 15.01. 2016.
- One Day IEEE Xplore Digital Library Awareness Workshop held at YMCAUST, Faridabad on 16-Oct-15
- One day Seminar on 'An Integrated to Research Quality and Ethics', YMCAUST, on 20.01.2017
- Two weeks FDP sponsored by (DST-NIMAT) on 'Entrepreneurship: An Effective Tool to Improve Industry- Institute Intraction' YMCAUST, from 07.12.2017 to 20.12.2017.
- One week STC on 'Soft Skills Development: A Tool for Effective Teaching', IIT Roorkee, from 25.06.2018 to 29.06.2018.
- One week FDP on 'Data Science and Big Data Analytics', ICT Academy, from 28.08.2018 to 01.09.2018.
- One week FDP for 'Improving Teaching, Learning and Research Competence,' ESCI, Hyderabad, from 25.06.2019 to 29.06.2019.
- One and half weeks FDP on 'Work System Design', NAPTEL- AICTE, Oct 2019.
- One week FDP on '3D Printing & Design', AICTE Training and Learning Academy, Jaipur, from 20.01.2020 to 24.01.2020.
- Two weeks FDP on 'Transformation in Teaching Learning Process (DTITLP)', course organised by NPIU and conducted by IIT Bombay on SWAYAM from 06.04.2020 to 22.04.2020.
- One week FDP on 'Research in Modern Era', Mech Engg. Deptt., JCBUST, YMCA, Faridabad from 01.06.2020 to 05.06.2020.
- One day International symposium on COVID 19 & Beyond: The new normal in HEIs, IQAC, JCBUST, YMCA, Faridabd, on 10.06.2020.
- AICTE approved One week FDP on 'Incorporating Universal Human Values in Technical Education', AICTE online, from 05.08.2020 to 09.08.2020.
- One week Short term training program on 'Advances in Manufacturing Technology: CNC and Robotics', Mech Engg Deptt, JCBUST, YMCA, from 17.08.2020 to 22.08.2020.
- Professional Development Training at IIM Raipur from 14.01.2021 to 16.01.2021.
- National Seminar on 'Teacher's Role in National Education Policy-2020 Implementation' at JCBUST, YMCA, Faridabad on 18.02.2021.
- TEQIP-3 sponsored STC on Supply Chain Management at JCBUST, YMCA, Faridabad from 13.03.2021 to 17.03.2021.
- FDP on 'Cardinal Role of Quality Education in Developing Self-Reliant India' at IQAC, Aggarwal College, Ballabgarh from 07.07.2021 to 14.07.2021
- FDP on Exergy Analysis in Industrial Applications from 25.10.2021 to 29.10.2021
- FDP on Engineering Materials from 24.01.2022 to 30.01.2022.

Others:

- Conducted a **Value Added Course on 'Universal Human Values'** for UG students
 - Completed 3 MOOCs 'Work System Design' and 'Operations Management' and 'Digital transformation in Teaching Learning'
 - Fellow, 'The Institution of Engineers (India)'.
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- Life Member, 'Indian Institution of Industrial Engineering, Navi Mumai'.
- **Life Member**, 'Indian Science Congress Association'.

Personal Qualities

- Passionate about teaching and mentoring students
- Strong commitment to the growth of the department and University
- Excellent Interpersonal skills

Hobbies and Interests

- Reading
- Visiting places of religious and cultural importance

Personal Details

Name: Dr Sandhya Dixit

D.O.B.: 01.02.1979

Nationality: Indian

Religion: Hindu

Category: General

Marital Status: Married

Husband's Name: Dr Ashutosh Dixit

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