

## CURRICULAM VITAE



**Dr. Ashish Khaira**  
**B.E. (Hons.), M.Tech (Outstanding Grade), PhD**  
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### OBJECTIVE

To work for a progressive organization in a highly motivating and challenging environment that provides the best opportunities to grow and utilize my potential to the fullest to achieve the organization's goal while achieving my personal goals.

### PROFILESUMMARY

Hard-working, efficient, ambitious & energetic person with convincing capability; with multiple years of industrial and academic experience; NDT Level-II (UT), alongwith a published book, book chapter, journal articles, conferences, and magazine articles.

### EDUCATIONALBACKGROUND

Degree/Level	Branch/Subjects	Year of Enroll	Year of Passing	Full /Part-Time	Name of Institution	Board/ University	% or GGPA
<b>PhD</b>	Mechanical Engg.	Aug 2014	Sep 2017	Full Time	MANIT, <u>Bhopal</u> -India	MANIT, <u>Bhopal</u> -India	9.20 (Course Work)
<b>M.Tech</b>	Maintenance Engg	Aug 2011	Aug 2013	Full Time	MANIT, <u>Bhopal</u> -India	MANIT, <u>Bhopal</u> -India	9.98
<b>B.E.</b>	Mechanical. Engg.	Aug 2003	July 2007	Full Time	SATI (GEC), <u>Vidisha</u> -India	RGPV, <u>Bhopal</u> -India	79.38%
<b>Intermediate</b>	PCM	July 2002	July 2003	Full Time	NPHSS, <u>Bhopal</u> -India	M.P. Board	86.2 %
<b>High school</b>	All Subjects	July 2000	July 2001	Full Time	NPHSS, <u>Bhopal</u> -India	M.P. Board	78.8%

### GATE:-

Year of Appearing	Discipline	Marks	Score	AIR	Status
2011	Mechanical	45.67/100	475	3678	Qualified

### PROFESSIONAL CERTIFICATION

- [1]. Non Destructive Testing Level Two - Ultrasonic Testing (NDT L:II - UT) certified by Trinity Institute of NDT Technology (A Unit of Trinity NDT), India having validity from 30<sup>th</sup> Sep 2020 to 29<sup>th</sup> Sep 2025 and certificate number TINT/228478 with aggregate 84.6%.

### EXPERIENCE

Period	Organization Name & Profile	Designation	Specific Duties & Key Accomplishments
<b>1<sup>st</sup> Jan 2018 to Till Now</b>	Samrat Ashok Technological Institute (Govt. Engg. College) Civil Lines, <u>Vidisha</u> (M.P.) 464001, <u>INDIA</u>	Assistant Professor (TEQIP Faculty); Under	<b>Specific Duties-</b> <ul style="list-style-type: none"> <li>• Research &amp; Academic activities.</li> <li>• Project Planning.</li> <li>• Skill Development</li> </ul>

	SATI, <u>Vidisha</u> was established on 1 Nov 1960; presently it is NAAC Accredited, A Grant-in-Aid Fully Autonomous Engg. College	NPIU, New Delhi)	<ul style="list-style-type: none"> <li>• Lab Establishment</li> </ul> <b>Key Accomplishments –</b> <ul style="list-style-type: none"> <li>• One student team under me and my co-faculty mentorship won hardware edition of National level SIH-2020 (Organized by MHRD India)</li> <li>• Delivered Expert Lecture on Research Dissemination &amp; Intellectual Property in a faculty development workshop organized at SATI, <u>Vidisha</u>(M.P.)</li> <li>• Delivered Expert Lecture on Engineering for the 21st Century in a student induction/motivation program organized at SATI, <u>Vidisha</u>(M.P.)</li> <li>• Created official <a href="#">Twitter</a> handle &amp; reincarnated official <a href="#">LinkedIn</a> account of SATI, <u>Vidisha</u> (M.P.)</li> </ul>
<b>Completed Ph.D. (Full Time) in Mechanical Engineering from MANIT-<u>Bhopal-India</u>; Final Defense Completed on 29<sup>th</sup> Sep 2017; Notification Issued on 5<sup>th</sup> Oct 2017</b>			
<b>In between July 2011 to August 2013 completed post-graduation (Full Time) in Maintenance Engineering from MANIT-<u>Bhopal-India</u></b>			
<b>01<sup>st</sup>FEB 2009 to 21<sup>st</sup>JULY 2011 (2 Year, 5 Month, 21 Days)</b>	Radharaman Institute of Research & Technology, <u>Bhopal</u> (M.P.)  <b>RIRT</b> is belonging to the Radharaman Group of Institutes. It is one of the premier institutes in central India.	Lecturer (Mechanical Engineering Deptt)	<b>Specific Duties</b> <ul style="list-style-type: none"> <li>• Completed teaching activities.</li> <li>• Served as a TG for various semesters.</li> <li>• Delegated in the procurement of book &amp; lab requirement planning.</li> </ul> <b>Key Accomplishments</b> <ul style="list-style-type: none"> <li>• Delivered Improvement in the results of various semesters by teaching as well as suggestions.</li> <li>• Proposed books and lab equipment to improve the skill &amp; knowledge level of students.</li> </ul>
<b>25<sup>th</sup>JUNE 2007 to 23<sup>rd</sup>FEB 2009 (01 Year, 7 Months)</b>	M/s J K Tyres & Industries Ltd., Banmore Tyre Plant, <u>Gwalior</u> (M.P.) <b>J K Tyres &amp; Industries Ltd.</b> is belonging to JK Industries. J K Tyres is a <b>QS9000, TS16949 &amp; ISO: 14001</b> certified leading tire manufacturing company.	<b>Joined as - GET Designation (After training period) – Engineer (Mechanical Maintenance Deptt)</b>	<b>Specific Duties</b> <ul style="list-style-type: none"> <li>• Delivered Improvement in equipment efficiency by using opportunity windows like material shortage &amp; equipment breakdown for small maintenance activities. Resolved breakdown and troubleshooting through Why-2 Analysis</li> </ul> <b>Key Accomplishments</b> <ul style="list-style-type: none"> <li>• Handled the overall shift activities, preventive maintenance activities.</li> <li>• Implemented TPM techniques with coordination of Internal &amp; other departments.</li> <li>• Delegated in the procurement of spare parts.</li> <li>• Why-Why analysis.</li> </ul>

**Additional Responsibilities (Employer: SATI-Vidisha (M.P.):**

S.No	From	To	Position Held	Specific Duties & Key Accomplishments
1	31 <sup>st</sup> Dec 2019	Till Date	Member (Start-up Cell, Incubation & IPR)	<p><b>Specific Duties</b></p> <ul style="list-style-type: none"> <li>- To promote Start-Up and IPR among students faculties</li> <li>-To start incubation cell at institute level.</li> </ul> <p><b>Key Achievements</b></p> <ul style="list-style-type: none"> <li>-Organized Internal Hackathon 2020 from 15<sup>th</sup> Jan 2020</li> </ul>
2	17 <sup>th</sup> Jan 2019	Till Date	Program Representative (ME) Career Guidance Cell	<p><b>Specific Duties</b></p> <ul style="list-style-type: none"> <li>- Placement of students</li> <li>-To prepare a complete database of AICTE mandates</li> <li>-Arranging training program related to placement</li> <li>-Preparing departmental alumni database</li> <li>-Enhancing connectivity with industries and alumni for industrial training and internship of students</li> </ul> <p><b>Key Accomplishments:</b></p> <ul style="list-style-type: none"> <li>-Collected HR details(Email/Contact Number) of companies (approx.100) recruiting in MP</li> </ul>
3	05 <sup>th</sup> Oct 2018	Till Date	Departmental Representative (ME) Training & Placement	<p><b>Specific Duties</b></p> <ul style="list-style-type: none"> <li>-Training, Placement, and internship for students</li> </ul>
4	06 <sup>th</sup> Sep 2018	30 <sup>th</sup> June 2019	Tutor Guardian (I-Year Mechanical Engineering)	<p><b>Specific Duties</b></p> <ul style="list-style-type: none"> <li>Mentoring students.</li> </ul>
5	12 <sup>th</sup> March 2018	Till Date	Member, Media Cell	<p><b>Specific Duties</b></p> <ul style="list-style-type: none"> <li>To promote the institute's presence in social &amp; print media.</li> </ul> <p><b>Key Accomplishments:</b></p> <ul style="list-style-type: none"> <li>Created official <a href="#">Twitter</a> handle &amp; reincarnated official <a href="#">LinkedIn</a> account of SATI, <u>Vidisha</u> (M.P.)</li> </ul>
6	09 <sup>th</sup> May 2018	16 <sup>th</sup> Jan 2019	Departmental Representative (ME), Alumni Cell	<p><b>Specific Duties</b></p> <ul style="list-style-type: none"> <li>To prepare/maintain the database of the alumni and strengthens the association and Institute-Alumni bonding.</li> </ul>
7	28 <sup>th</sup> March 2018	8 <sup>th</sup> Jan 2019	Member, Intellectual Property Cell (Cell formed in collaboration with Engineering Staff College of India (ESCI), Hyderabad)	<p><b>Specific Duties</b></p> <ul style="list-style-type: none"> <li>To motivate faculty &amp; students for filing the patent applications.</li> </ul>

## FELLOWSHIPS /AWARDS

- [1] Fellowship for Doctoral Programs awarded by Ministry of Human Resource Development, India in the year 2014 for qualifying the doctorate registration.
- [2] Fellowship for Master's Programs awarded by Ministry of Human Resource Development, India in the year 2011-2013 for post-graduation.
- [3] Degree with Outstanding Performance in Master of Technology awarded by Maulana Azad National Institute of Technology, India in the year 2013 for scoring above 9 pointers.
- [4] Honors degree awarded by Rajiv Gandhi Technical University, Bhopal (M.P.) in the year 2007 for scoring 79.38% in graduation.
- [5] Certificate of merit awarded by SATI, Vidisha (M.P.) in session 2006-07 for securing second position in B.E. (Mechanical) - III year.
- [6] Certificate of appreciation awarded by Manav Care Organization in the year 2001 for volunteer work in raising funds to benefit for handicapped & underprivileged children.
- [7] Certificate of merit awarded by NPHSS, Bhopal (M.P.) in session 1998-99 for securing First Position in school in Class VIII.
- [8] Certificate of merit awarded by NPHSS, Bhopal (M.P.) in session 1999-2000 for securing First Position in school in Class IX.
- [9] Certificate of appreciation awarded by All World Gayatri Parivar Organization in the year 2001 for better performance in the Indian Cultural Knowledge Examination.
- [10] Certificate of appreciation awarded by All World Gayatri Parivar Organization in the year 2000 for securing the second rank in the city {Bhopal (M.P.)} in the Indian Cultural Knowledge Examination.
- [11] Certificate of appreciation awarded by All World Gayatri Parivar Organization in the year 1999 for securing the first rank in school {NPHSS, Bhopal (M.P.)} in the Indian Cultural Knowledge Examination.

## RESEARCH/CONSULTANCY PROJECTS

- [1]. **Research Project (As a Principal Investigator)** entitled, "*Development of Intelligent Structures using Concept of Embedded Structural Health Monitoring System*" approved under "TEQIP Collaborative Research Scheme (NPIU-MHRD)" in 18<sup>th</sup> June 2019; Co-PIs: Dr. Ravi K. Dwivedi (MANIT-Bhopal), Prof. Sanjay Jain (SATI-Vidisha); **Project Budget:** Rs. 12.70 Lac.

## INTELLECTUAL PROPERTY

### International Patent

- [1]. Patent (As an **Applicant**) entitled "[\*An Artificial Intelligence Based Real Time Drowsiness Detection System\*](#)" filed on 17<sup>th</sup> Sep 2020 with File No. 2020102320 and **granted** on 14 Oct 2020 (**Australian Patent**)
- [2]. Patent (As an **Applicant**) entitled "[\*Development of Android Based Auto Car Jack Using Internal Car Power\*](#)" filed on 14<sup>th</sup> April 2021 with File No. 2021101931 and granted on 19 May 2021 (**Australian Patent**)

### National Patent (Patent search → Application Status)

- [1]. Patent (As an **Applicant**) entitled "[\*Crusher Apparatus for Decomposable Goods\*](#)" filed on 28<sup>th</sup> Aug 2020 with File No. 332466-001 (Chennai, India)
- [2]. Patent (As an **Applicant**) entitled "[\*Emergency Notification Systems for Use with Footwear for User's Safety\*](#)" **published** on 10<sup>th</sup> July 2020 with Application No. 202041026841 A/ The Patent Office Journal No. 28/2020/ pp. 25985 (Chennai, India)
- [3]. Patent (**As an Applicant**) entitled "[\*Design for Solar Panel Cleaning System Using SPA Concept\*](#)" **published** on 05<sup>th</sup> June 2020 with Application No. 202041017417 A/ The Patent Office Journal No. 23/2020/ pp. 21110 (Chennai, India)
- [4]. Patent (**As an Inventor**) entitled "[\*Design of Autonomous 5D Arm Robot for Industrial Application\*](#)" **published** on 28<sup>th</sup> Feb 2020 with Application No. 202041007641 A/ The Patent Office Journal No. 09/2020/ pp. 11250 (Chennai, India)

## PUBLICATIONS

### [I]. Research Papers-

#### (A).International

1. **Khaira, A.,** Dwivedi, R. K., & Jain, S. (2020). Structural Health Monitoring (SHM) of Machine Using a Combination of Non-Destructive Testing for Heavy Manufacturing Industry. In E3S Web of Conferences (Vol.184, p. 01059). EDP Sciences.eISSN: 2267-1242, IF(SNIP)-**0.52 (Web of Science: CPCI)**DOI: <https://doi.org/10.1051/e3sconf/202018401059>
2. **Khaira, A.,**Dwivedi, R.K.(2019), Two-Step Decision Making Approach for Identification of Critical Equipment Using AHP and PROMETHEE with Improved Normalization. *Engineering Review-Journal*(Publisher:University of Rijeka, CROATIA), 39(2), 174-185. ISSN: 1330-9587,IF(SNIP)-**0.760(ESCI)**DOI: <http://doi.org/10.30765/er.39.2.7>
3. **Khaira, A.,** &Dwivedi, R. K. (2018). A State of the Art Review of Analytical Hierarchy Process. *Materials Today: Proceedings* (Publisher:**Elsevier, UK**), 5(2), 4029-4035. E-ISSN: 2214-7853, IF(SNIP)-**0.694(Scopus)**
4. **Khaira, A.,**Dwivedi, R.K., (2017), A Review of the State-of-the-Art on Combining Multiple NDT Techniques in Terms of Precise Fault Detection.*International Journal of Engineering and Technology Innovation*(Publisher:Taiwan Association of Engineering and Technology Innovation, Taiwan), 7(3), 169-187. ISSN: 2223-5329,IF(SNIP)-**0.613(ESCI)**
5. **Khaira, A.,**Dwivedi, R.K., (2017). Identification of Critical Component to Enhance Equipment Availability in a Graphite Manufacturing Industry. *International Journal of Mechanical and Production Engineering Research and Development*(Publisher:Trans-stellar, India), 7(3), 25-32. ISSN: 2249-6890,IF(SNIP)-**0.208(Scopus)**
6. **Khaira, A.,** (2016). Risk-Based Maintenance- A Unique Approach to Maintenance Management. *Asset Management & Maintenance Journal*, 29 (2), 22-27.ISSN:1835-789X(**Scopus**)
7. **Khaira, A.,**Dwivedi, R.K., (2016). A State of the Art Critical Review of NDT Techniques and Its Development: A Review of more Than a Decade of Research. *International Journal of Advanced Information Science and Technology* (India), 5(7), 19-37. ISSN:2319-2682
8. **Khaira, A.,**Srivastava, S., &Suhane, A. (2015). Analysis of the relation between ultrasonic testing and microstructure: a step towards highly reliable fault detection. *Engineering Review-Journal*(Publisher:University of Rijeka, CROATIA), 35(2), 87-96.ISSN: 1330-9587, IF(SNIP)-**0.760(ESCI)**
9. **Khaira, A.,**Suhane, A., &Srivastava, S. (2015). Comparative Analysis of Different Steel Grades for Francis Turbine Spiral Casing & Modification in Maintenance Strategy for Cavitations Prevention. *Chemical Science Review and Letters*(India), 13 (4), 179-187. ISSN:2278-6783 (**Chemical AbstractService**)
10. **Khaira, A.,**Dwivedi, R. K., &Srivastava, S. (2014). A Study of NDT Techniques Together with Its Significance in Industries. *Journal of Advanced Engineering Research*(India), 1(2), 126-129.ISSN: 2393-8447, IF(GIF)-**0.546**.
11. **Khaira, A.,**Srivastava, S., &Suhane, A. (2013). Analysis of Co-Relation between Ultrasonic Testing and Micro Structural Examination for Condition Based Maintenance System. *International Journal of Engineering Sciences Research*(Publisher: Society of Scientific Research and Education (SSRE), India), 4 (2), 20-23.ISSN: 2230 – 8504, IF-**2.0**.
12. **Khaira, A.,** Jain, A.K. (2012). An Optimized Decision for Opportunistic Maintenance or Event-Driven Maintenance of Industrial System. *International Journal of Scientific and Engineering Research*(India), 3(6), 1-5.ISSN:2229-5518 (**Thomson Reuters**),IF-**4.2**.
13. **Khaira, A.,**Jain, A.K.(2012).DevelopmentofanEffectiveMaintenanceWorkmanSkillsImprovementProgram. *International Journal of Engineering Research and Applications*(India), 2(2),131-137. ISSN: 2248-9622, IF-**5.011**.

### [II]. Conferences (International/National)-

#### (A).International

1. **Khaira, A.,** Dwivedi, R. K., & Jain, S. (2021, June). Review of structural health monitoring attributes optimization with multiple regression and teaching learning based optimization. In *IOP Conference Series: Materials Science and Engineering* (Vol. 1136, No. 1, p. 012061). IOP Publishing. (Web of Science: CPCI) DOI: <https://doi.org/10.1088/1757-899X/1136/1/012061>

2. **Khaira, A.,** Dwivedi, R. K., & Jain, S. (2021, June). Optimization of structural health monitoring attributes under variable failure rate condition using teaching learning based optimization and multiple regressions. In *IOP Conference Series: Materials Science and Engineering* (Vol. 1136, No. 1, p. 012062). IOP Publishing. (Web of Science: CPCI) DOI: <https://doi.org/10.1088/1757-899X/1136/1/012062>
3. **Khaira, A.,** Dwivedi, R. K., & Jain, S., (2020, July). Structural Health Monitoring (SHM) of Machine Using a Combination of Non-Destructive Testing for Heavy Manufacturing Industry. In 2nd International Conference on Design and Manufacturing Aspects for Sustainable Energy (ICMED 2020), Hyderabad, India,2020.
4. **Khaira, A.,**Dwivedi, R.K., (2017, March). A State of the Art Review of Analytical Hierarchy Process. In *7th International Conference of Materials Processing and Characterization (ICMPC-2017)*, Hyderabad, India,2017.
5. **Khaira, A.,**Dwivedi, R.K., Srivastava, S. (2016, February). A State of the Art Review of Online Condition Monitoring Tools using NDT as Principal Testing Technique. In *1<sup>st</sup> International Conference of Trends in Industrial and Mechanical Engineering (IC TIME 2016)*, Bhopal, India 2016, pp. 41-48.ISBN:978-93-84935-68-9
6. **Khaira, A.,**Dwivedi, R.K., Srivastava, S. (2014, November). A Research Paper on Introduction of NDT Techniques and Its Practical Applications. In *1<sup>st</sup> International Conference of Industrial, Mechanical and Production Engineering: Advancements and Current Trends*, Bhopal, India 2014, pp. 650-654.ISBN:978-93-84935-03-0

#### (B). National

1. Gaur J., Jain S., **Khaira A.,** (2019, April).A Review of Power Transmission Error in Spur Gear (Vol. 1). In *1<sup>st</sup>National Conference on Modern Tools in Engineering*, Vidisha, India 2013,pp.224-226.ISBN:9789382346258.
2. **Khaira, A.** (2014, February). Maintenance Activities for Boilers. In *7<sup>th</sup> National Conference on Boiler & Steam Systems*, Ahmadabad, India 2014, pp.60-62.
3. **Khaira, A.,**Suhane, A., Srivastava, S. (2013, August). Ultrasound Condition Monitoring System for Lubrication: A Combination of Preventive & Condition Based Approach. In *1<sup>st</sup> National Conference on Frontiers in Mechanical Engineering*, Bhopal, India 2013, pp. 226-228.ISBN:978-93-83083-27-5

### [III]. Authored Book/Book Chapter-

#### (A). Authored Book

1. **Khaira, A.,** Jain, A.K. (2012). *A Book on Decision Making For Event-Driven Maintenance* (Vol. 1). Lambert Academic Publishing, Germany, ISBN: 978-38-47332-53-4, pp.1- 92.

#### (B). EditedBook

1. Agarwal P., VermaP.L, SinghC.P., Sen N., **Khaira A.**(2019).*Edited Book-Modern Tools in Engineering*(Vol. 1).Balaji Publications, India,ISBN:9789382346258.

#### (C). BookChapter

1. Gaur J., Jain S., **Khaira A.,** (2019).A Review of Power Transmission Error in Spur Gear (Vol. 1). In Edited Book-Modern Tools in Engineering (Editor: Dr. PankajAgarwal, Dr. P.L. Verma, Dr. C.P.Singh, Prof. NeerajSen, Dr. AshishKhaira), Balaji Publications, India, pp.224-226.ISBN:9789382346258.
2. **Khaira, A.,**Dwivedi R.K., (2018). A State of Art Critique Review of Role of Decision Making Techniques in NDT for Condition Monitoring (Vol. 1). In Edited Book-Advanced Condition Monitoring and Fault Diagnosis of Electric Machines (Editor: Dr. Muhammad Irfan, Najran University, Saudi Arabia), IGI-Global, USA,pp.222- 235.ISBN13: 9781522569893; ISBN10: 1522569898; EISBN13: 9781522569909; DOI: 10.4018/978-1-5225-6989- 3.
3. **Khaira, A.,**Dwivedi R.K., (2018).A State of Art Critique Review of Role of Optimization in NDTS for Effective Condition Monitoring (Vol.1). In Edited Book-Advanced Condition Monitoring and Fault Diagnosis of Electric Machines(Editor: Dr. Muhammad Irfan, Najran Univ., Saudi Arabia), IGI-Global, USA, pp.189- 221.ISBN13: 9781522569893; ISBN10: 1522569898; EISBN13: 9781522569909; DOI: 10.4018/978-1-5225-6989- 3.
4. **Khaira, A.,**Dwivedi, R.K., Srivastava, S. (2016). *A State of the Art Review of Online Condition Monitoring Tools using NDT as Principal Testing Technique* (Vol. 1). In Edited Book-Trends in Industrial and Mechanical Engineering(Editors: Dr. Ajay Verma, Dr. Vimlesh Kumar Soni, Dr. Pradeep Kumar Soni,), Excellent Publishing House, India, pp. 41-48.ISBN:978-93-84935-68-9.



## **PROFESSIONAL DEVELOPMENT**

### **Training Program/FDP Attended**

- [1] Participated in 3-days “Faculty Development Program for Student Induction (FDP-SI)” during 9-11 January 2020 at IES College of Technology, Bhopal organized by All India Council for Technical Education(AICTE).
- [2] Participated in TEQIP sponsored “Summer Training Program on Advance Pedagogy and Digital Tool” organized by IIT Gandhinagar (G.J.) from 27th – 31st May 2019.
- [3] Participated in Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) sponsored “Short Term Training Program (STTP) on Industrial Training for Teachers” organized by NITTTR, Bhopal (M.P.) from 25th June – 06th July 2018.
- [4] Participated in TEQIP-KITE sponsored “Summer Training Program on Active Learning” organized by IIT Bombay (M.H.) from 11th – 15th June 2018.
- [5] Participated 2 Day FDP on “Total Quality Teaching” organized by SATI-Vidisha (M.P.) in collaboration with Titan’s Learning Pvt. Ltd. from 16th – 17th March 2018.
- [6] Participated in Self-Sponsored “Short Term Training Programme (STTP) on Nano, Micro and Bulk Material Processing and Nanotechnology” held at GRIET, Hyderabad (T.S.) in collaboration with MANIT-Bhopal (M.P.) during 20th - 26th March 2017.
- [7] Participated in TEQIP sponsored “Short Term Training Programme (STTP) on Advanced Engineering Optimization Through Intelligent Techniques (AEOTIT)” held at the National Institute of Technology, Surat (G.J.) during 21st - 25th March 2016.
- [8] Participated in TEQIP sponsored “Short Term Training Programme (STTP) on Advanced Optimization and Applications” held at the National Institute of Technology, Raipur (C.G.) from 03rd - 07th August 2015.

### **Workshop Attended**

- [1] Participated in TEQIP sponsored Workshop on the “3D Printing & Design “organized by IIT-Hyderabad from 28<sup>th</sup> Nov 2020- 02<sup>nd</sup> Dec 2020 ( Faculty training on future skills declared by NASSCOM & NPIU under for “**Train the Trainer**” scheme)
- [2] Participated in TEQIP sponsored Workshop on the “Procurement procedure of CRS Proposal “organized by SPIU-MP on 23<sup>rd</sup> Oct 2020.
- [3] Participated in TEQIP sponsored Workshop on “Implementation of Finance/Accounting and Procurement Guidelines in CRS Project” organized by SPIU-MP on 08<sup>th</sup> Feb 2020.
- [4] Participated in TEQIP sponsored Workshop on “How to Write Collaborative Research” organized by SPIU-MP on 30<sup>th</sup> April 2019.
- [5] Participated in TEQIP sponsored Workshop on “Outcome Based Education “organized by SPIU-MP on 24<sup>th</sup> April 2019.
- [6] Participated in TEQIP sponsored “Faculty Induction Workshop” organized by IIT Indore (M.P.) from 23<sup>rd</sup> – 27<sup>th</sup> Jan 2018.
- [7] Participated in International Workshop on “Computational Methods in Vibration & Acoustics (IWCMA-2015)” organized by the Department of Mechanical Engineering, IIT-Dhanbad (J.K.) during 16th – 21st March 2015.
- [8] Participated in National Workshop on “Application of MATLAB for Engineering (AMEC)” organized by the Department of Mechanical Engineering, PDPM-IIITDM-Jabalpur (M.P.) during 01st – 05th Dec 2014.

- [9] Participated in National Workshop on “Significance of Rapid Prototyping & Rapid Tooling in Indian Industry” organized by the Department of Mechanical Engineering, MANIT-Bhopal (M.P.) during the 11th – 12th May 2013.

### **MOOC (Massive Open Online Course)**

- [1] Completed an online certification course on “[Getting and Cleaning Data](#)” developed by the **Johns Hopkins University, USA**, and certified by Coursera (2016) in an online format.
- [2] Completed an online certification course on “[R Programming](#)” developed by the **Johns Hopkins University, USA**, and certified by Coursera (2016) in an online format.
- [3] Completed an online certification course on “[The Data Scientist’s Toolbox](#)” developed by the **Johns Hopkins University, USA**, and certified by Coursera (2016) in an online format.

### **Swayam/NPTEL**

- [1] Participated in TEQIP sponsored course on “Digital Transformation in Teaching-Learning Process” Course offered by IIT-Bombay (M.H.) & powered by Swayam from 14<sup>th</sup> Feb – 06<sup>th</sup> March 2020 in an online format.

### **Webinars/Online STTP**

- [1] Participated in an online STTP on *How to Use MCDM in Research* organized by the REST Society for Research International (RSRI), India conducted on August 31<sup>st</sup>–05<sup>th</sup> Sep 2020 in an online format.
- [2] Participated in an online STTP on *Data Analysis in Matlab Software* organized by the REST Society for Research International (RSRI), India conducted on August 17<sup>th</sup> – 22<sup>nd</sup> 2020 in an online format.
- [3] Participated in an online STTP on *Application of Optimization Techniques in Mechanical Engineering Research - AOTMER* organized by the Vitarka Projects, India conducted on August 7<sup>th</sup> – 11<sup>th</sup>, 2020 in an online format.
- [4] Participated in a webinar on *Atomic Force Microscopy in Nano-tribology: How AFM Can Be Used to Study Nanoscale Friction, Wear, and Lubrication* organized by the [Asylum Research](#), USA conducted on June 24<sup>th</sup> 2020 in an online format.
- [5] Participated in five 1-hour *Lubrication* webinars conducted by the [Precision Reliability Group](#) (collective of industry experts from the **USA**) conducted from April 29<sup>th</sup>- May 1<sup>st</sup>, 2020 in an online format.

### **Industrial Training/ Research Study**

- [1] **Research Study** – Completed 8 weeks research study on review of the existing condition monitoring program of screw compressor & recommendation for its modification at **HEG Limited, Mandideep (M.P.)**
- [2] **Major Training** - Completed 4 weeks of industrial training at **JK Tyres & Industries Ltd., Banmore Tyre Plant, Gwalior (M.P.)**
- [3] **Minor Training**- Completed 2 weeks vocational training at **Diesel Locomotive Shed, Jhansi (U.P.)**

### **SEMINAR/WORKSHOP/SHORT TERM TRAINING/CONFERENCE PROGRAM ORGANIZED**

- [1]. Organized **MHRD supported three-day National level “Smart India Hackathon-2020”** on 1<sup>st</sup>-3<sup>rd</sup> Aug 2020 at SATI-Vidisha (M.P.) as a Social Media Coordinator.
- [2]. Organized TEQIP-III sponsored five-day “Internal Hackathon-2020” on 15<sup>th</sup>-19<sup>th</sup> Jan 2020 at SATI-Vidisha (M.P.)
- [3]. Organized TEQIP-III sponsored one-day National Conference on “Modern Tools in Engineering” on 5<sup>th</sup> April 2019 at SATI-Vidisha (M.P.) under the twinning arrangement with VNIT-Nagpur (M.H.).
- [4]. Organized TEQIP-III sponsored a two-day event on “Smart MP Hackathon-2019” on 14-15 March 2019 at SATI-Vidisha (M.P.).
- [5]. Organized TEQIP-III sponsored a two-day event on “Rural-Hackathon-2018” on 30<sup>th</sup>-31<sup>st</sup> October 2018 at SATI-Vidisha (M.P.).
- [6]. Organized TEQIP-III sponsored one-day workshop on “Start-up Conclave-2018” on 22<sup>nd</sup> September 2018 at SATI-Vidisha (M.P.).



[7]. Organized TEQIP-III sponsored one-day seminar on “Sustainable Energy: Challenges & Issues” on 3<sup>rd</sup> May 2018 on the occasion of International Energy Day 2018 at SATI-Vidisha (M.P.).

#### Expert/Expert Lecture/GuestTalk/Examiner/Jury/Advisor/Co-Advisor

1. Acted as an **External Examiner** for Practical Examination of M.Tech Dissertation, held on 16<sup>th</sup> Jan 2021 at IPS College of Technology and Management
2. Acted as a **Jury Member** in the TEQIP-III sponsored “**Internal Hackathon-2020**” at SATI, Vidisha (M.P.) from 15<sup>th</sup> to 19<sup>th</sup> Jan 2020.
3. Acted as an **Expert (Mechanical)** in the TEQIP-III sponsored workshop on, “**TEQIP-III: Assessment of availability, quality, and relevance of the courses on SWAYAM, MOOCS**” at UEC, Ujjain on 17<sup>th</sup> & 24<sup>th</sup> Dec 2019. (*Significant Outreach Activity*)
4. Worked as an **Advisor** and provided feedback on various courses (which were needed to conduct Board of Studies) at Amity University, Noida (U.P.) (*Significant Outreach Activity*)
5. Worked as a **Co-Advisor** in Activity Publication Committee of Samrat Utsav -2018 (Annual Function) at SATI, Vidisha (M.P.)
6. Delivered **Expert Lecture** on “**Research Dissemination & Intellectual Property**” during the one day workshop on “**Teaching-Learning Process and Curriculum Development**” at SATI, Vidisha (M.P.) on 03/02/2018.
7. Delivered **Expert Lecture** on “**Engineering for the 21st Century**” during the one-day orientation program on “**Engineering: Scope & Challenges**” at SATI, Vidisha (M.P.) on 15/02/2018.

#### KEYSKILLS

[1] <b>Technical Skills</b>	<p>[1] Research Methodology: Taguchi DOE, Analysis of Variance (ANOVA), Regression, Response surface methodology (RSM)</p> <p>[2] Optimization: TLBO, JAYA, Desirability Function Approach (DFA), Grey relational analysis (GRA), Genetic Algorithm, Gradient-based Algorithm, PSO Optimization Algorithm, Harmony Search Algorithm</p> <p>[3] Decision Making: AHP, PROMETHEE, GTMA, TOPSIS, Weighted Average, VIKOR Method, ELECTRE Method, Fuzzy-MCDM</p> <p>[4] Failure Analysis: FMECA, Matrix-FMEA, Weibull, FRAM</p> <p>[5] Rapid prototyping machine and software's</p>
[2] <b>Computer Skills</b>	<p>[1] MATLAB and R programming.</p> <p>[2] Good presentation and MS Office skills.</p> <p>[3] Familiar with the operating system Windows 10.</p> <p>[4] Hands-on knowledge of SAP system.</p>
[3] <b>Writing Skills</b>	<p>[1] Good command over English Grammar, spelling, punctuation, etc.</p> <p>[2] Ideas, knowledge, and research resources at hand for daily fresh content.</p>

#### THESISWORK

- [1] **Doctorate** - Condition Based Strategy Using Decision Making and Multiple NDT Techniques to Optimize Maintenance Attributes (Submission Date: 16<sup>th</sup> Aug 2017)
- [2] **Post Graduation** - Analysis of Co-Relation Between Ultrasonic Testing and Micro Structural Examination of Francis Turbine Spiral Casing & Preparation of Condition Based Maintenance Plan
- [3] **Graduation** - Automated Storage & Retrieval System

#### REVIEWER/EDITOR/ MEMBER OF EDITORIALBOARD

##### Member of Editorial Board

[1] [Engineering and Applied Sciences Journal](#) (Science Publishing Group, USA)

##### Journal Reviewing (Publon)

[1] Archives of Civil and Mechanical Engineering (Elsevier)

- [2] Journal of Rail and Rapid Transit(SAGE)
- [3] Journal of Loss Prevention in the Process Industries(Elsevier)
- [4] Education + Training(Emerald)

**Conference Reviewing(Publon)**

- [1]. Asia Pacific Conference of the Prognostics and Health Management Society (2017, South Korea)

**MEMBERSHIP OF PROFESSIONALBODIES**

- [1] Member - International Society on MCDM,USA
- [2] Associate Member- The Institute of Research Engineers and Doctors- IRED, USA(Membership No.AM10100058244)
- [3] Member - International Association of Engineers (IAENG), Hong Kong(Member No.175815)
- [4] Life Member - The Institution of Engineers (India), MECHANICAL ENGINEERING Division, India (Membership No. M-1720737)

**EXTRACURRICULARACTIVITIES**

**[1] VolunteerWork-**

- Worked as a Volunteer Beta Tester for Coursera, USA to provide feedback on a course before making it available for the generalpublic.
- Worked as a Volunteers AI Trainer for Iris AI, USA to help IRIS (an Artificially Intelligent Scientific Assistant) in understanding research papers.
- Worked as a Volunteer in technical session management in the International Conference on Trends in Industrial and Mechanical Engineering (4<sup>th</sup>-6<sup>th</sup> Feb 2016) organized by the department of the mech. Engg., MANIT, Bhopal(M.P.)
- Worked as a Volunteer in technical session management in the International Conference on Industrial, Mechanical, and Production Engineering: Advancements and Current Trends (27<sup>th</sup>-29<sup>th</sup>Nov. 2014) organized by the department of the mech. Engg., MANIT, Bhopal(M.P.)

- [2]Fund Raiser-Provided help to Manav Care organization, India in raising funds for the benefit of handicapped & underprivileged children's inIndia.

**DECLARATION**

I hereby declare that I have read carefully and understood the above information and that all the entries in this CV are true to the best of my knowledge and belief.

**Place:** Bhopal (M.P.)-India



(Ashish Khaira)