SHUBHAM SHARMA

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https://join.skype.com/vhoXRRXLqSPa

Zoom ID:

https://us04web.zoom.us/j/6551328242?pwd=ZVJkNXhYK1g4M0RsS2Y3RUVkaXlDUT09

Zoom personal meeting ID: 655 132 8242

LONGEVITY CAREER GOALS:

To build a long-term career either as a reputable university professor or as a Research Scientist in the extensive domain of Research & Development (R&D) that offers opportunities for career growth, and to keep up with cutting-edge teaching technologies which helps to offer project-based learning to the students.

AREAS OF RESEARCH INTEREST

- Advances in Mechanical Engineering, industrial and production engineering, manufacturing technology, advanced materials science and various characterizations.
- Construction technology and management, Innovative construction materials, Solid waste management.
- Thermal Science with heat exchangers technologies, Environmental Science with Renewable and Non-Renewable energy resources & Advance Materials Science.
- Development and installation of eco-friendly and low-cost manufacturing process for the conversion of solid, industrial, domestic, agricultural and municipal waste into value added products and applications.
- Thermoplastics, Thermosetting resins and composites
- Natural fibers/Polymer composites & bio-composites
- Composites from Industrial, domestic, municipal and agro-wastes. Development of value-added products from Industrial waste
- Production, Manufacturing & Non-Traditional Machining with Recent trends & technologies like Additive Manufacturing Processes, Lean & Agile Manufacturing etc.
- Design, Metallurgy, Optimisation, Analysis & Modelling.
- Automobile & their Ancillaries and Logistics with recent novel applications.
- Nanoscience, Nanotechnology, Synthesis, Characterization of Nanofluids.
- Engineering Mechanics, Dynamics including acoustical properties such as noise and vibrations & Heat Treatment Processes.
- Industrial Engineering, Production Planning Control & Statistical Quality Control & Reliability.
- Destructive & Non-Destructive Testing.

- ❖ Energy, environmental sciences specifically in biotechnology, Chemical Engineering, Characterization & Testing.

DETAILED PROFESSIONAL EXPERIENCE

1. **V.K. Sareen & Associates, Jalandhar, Punjab, 144001, India**

   Since 03'14-03'16

   Website: https://vksareen.site123.me/

   Company Profile: V.K. Sareen & Associate., is a full-service law firm established to provide a single window legal service provider in today's competitive environment. Under the great leadership of Mr. Vinod Kumar Sareen Advocate who has a vast experience of more than 55 years, the firm aspires to build long term relationship with its clients, through teamwork guided by integrity and principles of honesty, accountability and consistency.

   Pershant Kumar Sareen, Advocate who is actively managing the firm has emerged as a true professional and is fully determined to take the firm to greater horizons. The firm understands the client perspective-the need for responsive legal advice, expertise, creativity and value. The firm has a very strong practice in the areas of Civil, Criminal, Arbitration, intellectual property litigation and litigation relating to cybercrimes in addition to all types of Accident Claims, Consumer Disputes, matrimonial and revenue matters. The firm also combines a vast litigation exposure ranging from Punjab and Haryana high court, subordinate courts and various forums & appellate tribunals. The firm has a well-versed team of lawyers to help its client with all kinds of legal services. It has a broad practice area and a diversified clientele base. The firm is known in the region for its ethical dealings, quality work and transparency in all its dealings.

   Designation: Legal Secretary

   Job duties & responsibilities (to be attested from employer):

i. To assist Senior Lawyer, Mr. Pershant K. Sareen in the litigation being handled in the Jalandhar court (Punjab and Haryana courts) on Civil side.

ii. To assist Senior Lawyer, Mr. Pershant K. Sareen in the litigation being handled in the Jalandhar court (Punjab and Haryana courts) on Criminal side.

iii. Engage in innumerable legal activities in V.K. Sareen & Associate as a legal secretary such as preparing court-forms;

iv. To conduct legal research and Draft legal documents as well as letters and other related documents;

v. To collect and analyze information, anticipating changes in litigation;

vi. To record meeting discussions, documentation and maintaining evidence;

vii. To prepare case arguments and acquire an appropriate statutory database.

Projects Handled:

Engage in innumerable legal activities in V.K. Sareen & Associate as a legal secretary such as preparing court-forms; conducting legal research; Drafting legal documents as well as letters and other related documents; collecting and analyzing information; anticipating changes in litigation; recording meeting discussions; documenting and maintaining evidence; preparing case arguments; acquiring an appropriate statutory database and conducting legal precedent research principles; and typing and filing legal documents.

2. **Council of Scientific and Industrial Research (CSIR)-Central Leather Research Institute (CLRI), RCED-Jalandhar, Punjab, 144021, India.**

Since 08'17- 01'20

Website: www.clri.org

Company Profile: CSIR-CLRI foresees to be the global hub that would transform the leather industry into one which is technology and innovation driven, thus steering India to be the global leader in Leather.

The role of CSIR-CLRI in scientific industrial research space of India is very focused. Objective of the institute is to meet the needs of the leather and allied sectors through research, technology development and transfer, training and industrial support and formulation of policies and plan of action that ensures a technology based competitive advantage for Indian leather. Leather technology, which deals with tanning raw hides and skins and finishing the tanned leather to impart to it the specific properties which it should have to be suitable for making particular types of leather articles either for military or civilian use, although very old, is still making progress. Its progress has been due to the application of various branches of science to it and research which is being carried out to explain the principles underlying the old craft of tanning, to throw light on the mechanism whereby the profound change viz., the conversion of putrescible raw hides and skins into imputrescible and permanent leather is brought about to improve the old techniques of leather manufacture and to work out new techniques with the help of modern science and machinery.

RCED Jalandhar is one of the four extension centres of CLRI, Chennai. It was started to benefit the Leather and Leather products industries in the state of Punjab. The centre is fully equipped with Chemical, Physical & Eco testing Laboratory. This centre has a pilot Tannery which provides varied services to the industry. This centre organizes Training programme in Leather goods and leather garments.

Designation: Junior Research Fellow (from 16-08-2017 to 15/08/2019) and Senior Research Fellow (from 16/08/2019 to 31/01/2020).

Job duties & responsibilities (to be attested from employer)

Carry out experimental research work of the project entitled, "Studies on Leather Solid Waste-Polymer Composites for Acoustic Applications" directed by the members of the PI, Project Implementation Committee (PIC) and CLRI, RCED, Jalandhar.

i. Sourcing of materials for the implementation of project.
ii. Procurement of materials for the implementation of project.
iii. Design and Execution of Experimental Research work.
iv. Testing of the fabricated materials.
v. Characterizations of the fabricated materials.
vi. Data compilation and Analysis.
vii. Preparation of Interim, and final project reports and manuscripts for publication.

Projects Handled:

i. "Studies on Leather Solid Waste - Polymer Composites for Acoustic Applications" a 3 Years project, Sectioned by SERB (DST) with funding of Rs 32,97,740 Lakh.

ii. "Studies on Leather solid waste reinforced thermosetting Polymer composites for high strength Structural applications" a 3 years project, Sanctioned by CSIR-Central Leather Research Institute (MLP-33) under Applied Research category with funding of Rs. 5,35,000 Lakh.

3. S.K. Manufacturing Company, Jalandhar, India

Since: 04'20-Till-date
Website: **http://www.skautoparts.in**
Company Profile: 'SK' a name founded way back in 1965, has grown from a small family run company to one of country's leading manufacturer of automotive spare parts; Tractor parts and agricultural implements.

Now, S.K. Manufacturing Co. is leading manufacturer of Automotive, Tractor spare parts and Agricultural implements of India and are located in the industrial town in Jalandhar in the state of Punjab. The Plant is modern, having all requisite manufacturing facilities as also a well-engineered utility section.

The secret of our success is the uncomprising business standards of its management and the company's unrelenting focus on quality. We have scientifically laid out modern machinery, which is run under the guidance of qualified experienced engineers, by a team of well-trained motivated workers in bright, way of neat working conditions. In our company whole of process, from pattern and die making to finishing of goods, are carried out under one roof.

For us "the interest of the consumer is the top priority and therefore "Quality is our creed".

That is why each product is made from the finest materials and is subjected to stringent, rigorous checks and inspection by qualified engineers with latest inspection tools at every stage of manufacture.

We have a large number of dealers throughout India who sell 'SK' automotive parts with confidence. They are served by an army of technically trained sales representatives.

Designation: Research and Development Engineer

Job duties & responsibilities (to be attested from employer)

i. Analyzing the machine tools and die making materials developed.

ii. Implementing the machine tools and die making materials developed.

iii. Testing the machine tools and die making materials developed.

iv. Develop process improvements to effectively utilize equipment and materials to maximize production.

v. Creating designs for machine tools and die making materials based on functional innovative concepts.

vi. To perform market research in order to evaluate alternative types of machine tool and die-making products for better viability.

vii. Analyzing new products and developing its Die for moulding.

viii. Stay current with product specifications, engineering technology and production processes.

Projects Handled:

i. Developing of Bogie brackets for Hino vehicles.
- **a.** Development of moulding dies on match plates.
- **b.** Development of machining fixtures for Hino vehicles.
- **c.** To finalize the machined product on vertical machining centres using suitable Machining and Geometric codes-based CNC Programming.

ii. Development of PTO-based special gear housing for TATA-709 vehicle.
- **a.** Development of moulding dies on match plates.
- **b.** Development of machining fixtures for TATA-709 vehicles.
- **c.** To finalize the machined product on vertical machining centres using suitable Machining and Geometric codes-based CNC Programming.

iii. Tool and die design for machine mould and automatic filling for hand mould tool, vertical and horizontal flow tools.

iv. Design and fabrication of specialized jig and fixtures, and tool cutting force dynamo meter on conventional machines.

BRIEF PROFESSIONAL EXPERIENCE

- Senior Research Fellow cum Jr. Res. Sci. from Department of Science & Technology (DST) & Science Education Research Board (SERB), an Autonomous body under Central Government at Council for Scientific & Industrial Research (C.S.I.R.) - Central Leather Research Institute (C.L.R.I.), Regional Centre for Extension & Development, India since August 16th 2019.

- Junior Research Fellow from Department of Science & Technology (DST) & Science Education Research Board (SERB), an Autonomous body under Central Government at Council for Scientific & Industrial Research (C.S.I.R.) - Central Leather Research Institute (C.L.R.I.), Regional Centre for Extension & Development, India since August 16th 2017.

- Guided more than ten students of Bachelors of Technology (B-Tech) & six students of Masters of Technology (M-Tech) in Research work/Dissertation/thesis & Industrial Projects of core Mechanical engineering field during Research tenure.

- Worked as a Mechanical Engineer trainee in Jai Bharat Maruti Limited, Joint Venture complex of Maruti Suzuki, Gurgaon city, Haryana state for six months (26 May-26 November).

SPEAKER INVITATIONS/GUEST LECTURE INVITATIONS

- Invitation for delivering a Lecture as a speaker, in an inaugural Second World Congress on Microscopy: Instrumentation, Techniques and Applications in Life Sciences and Materials Sciences (WCM 2018) conducted by Hotel National Park, in association with Mahatma Gandhi University, Kottayam, Kerala, India on 10-12th August 2018, Kottayam, Kerala, India.

- Invitation for delivering a Lecture as a speaker, in an inaugural "8th International Conference on Environmental Chemistry and Engineering" conducted by Berlin, Germany/ Golden Tulip Berlin – Hotel Hamburg on September 20-22, 2018, Berlin.

- Invitation for delivering a Lecture as a speaker, in an inaugural "Fourth International Conference on Nanomaterials: Synthesis, Characterization and Applications (ICN 2019)" conference which

will be held in Mahatma Gandhi University, Kottayam, Kerala, India during April 12-14, 2019.

- Invitation for delivering a Lecture as a speaker, in an inaugural "Metallurgy Summit-2019" conference which will be held in Milan, Italy during March 28-29, 2019.

- Invitation for delivering a Lecture as a speaker, in an inaugural "International Conference on Materials Research and Nanotechnology, Outlining the forefront Research: Materials Science-Nanotechnology-2019" conference which will be held in Rome, Italy during June 10-12, 2019.

- Invitation for delivering a Lecture as a speaker, in an inaugural "Fifth International Conference on Polymer Processing and Characterization (ICPPC - 2019)" conference which will be held in Mahatma Gandhi University, Kottayam, Kerala, India during October 11-13, 2019.

- Invitation for delivering a Lecture as a speaker, in an inaugural "Third International Conference on Advanced Materials for Power Engineering (ICAMPE 2019)" conference which will be held in Mahatma Gandhi University, Kottayam, Kerala, India during August 9-11, 2019.

- Invitation for delivering a Lecture as a speaker, in an inaugural "World Congress on Functional Materials and Nanotechnology-2019" conference which will be held in Valencia, Spain during May 13-14, 2019. I am also honour as one of the committee members of the conference.

  And many more…….

INTERNATIONAL CONFERENCES/SEMINARS ORGANIZED

- Authorized as a **Conference Secretariat Board member and Scientific Committee member** in the First International Conference of Information Technology, Engineering & Science (ICOITES), organized by University of Kufa, Najaf, Iraq on 22nd-23rd March 2020. [Please check the Secretariat Board member at the Conference Link: https://www.icoites.com/en/].

- Authorized as a **Conference Session chair and organizers** for the "**Smart Manufacturing – Industry 4.0**" track-session in the Sixth International Conference on Research in Intelligent and Computing in Engineering (RICE-2021), organized by Thu DAU Mot University, Vietnam on 3rd-4th June 2021. [Please check the Conference Link: https://riceconference.in/special-dates/].

- Authorized as a **Conference Secretariat Board member and Scientific Committee member** in the Iraqi Academics Syndicate International Conference for Pure and Applied Sciences (IICPS), organized by Academics Syndicate - Babylon Branch, with Cooperation of University of Babylon on 14th November, 2020. [Please check the Secretariat Board member at the Conference Link: http://iicps.net/].

- Authorized as a **Guest-Editor** (for Journal of Engineering Research, Open Computer Science-De Gruyter, IOP Journal of Physics conference Series) and Scientific Committee board member in the Al-Kadhum International Conference of Modern Application on Information and Communication Technology (MAICT), organized by Imam Al-Kadhum College (IKC), Al-Thakawat Foundation for Culture, Intellect and Arts (TCIA), Statistical and Informatics Consultation Center, KUFA University on 11th-12th January 2020. [Please check the Guest Editor Board member at the Conference Link: http://info-comm.tech/]

- Authorized as an Advisory Board member for the International Conference on E-Mobility (ICOEM2020), organized by PSG College of Technology, Coimbatore, India on 26th-27th June 2020. [Please check the Advisory Board member at the Conference Link: www.psgtech.edu/icoem2020/]

- Authorized as a Technical Committee member for the 2020 International Conference on Advanced Materials, Information Systems and Mechanical Engineering (AMISM 2020), organized by Ottawa Conference and Event Centre, 200 Coventry RD. Ottawa, K1K 4S3, Canada on 12th-13th September 2020. [Please check the Advisory Board member at the Conference Link: http://www.amism.org/com.html]

- Authorized as an International Advisory Board member and Scientific Committee member in the 3rd International Scientific Conference of Engineering Sciences and Advances Technologies (IICESAT), organized by College of Material Engineering, University of Babylon, Iraq on 4-5 June, 2021. [Please check the International Advisory Board at the Conference Link: http://www.iicesat.com/index.php].

- Authorized as an International Advisory Scientific Committee member in the International Conference on Sugar Palm and Allied Fibre Polymer Composites 2021- (SAPC 2021), organized by The Malaysian Society of Sugar Palm Development and Industry (PPIEM) with co-organisers as follows,

1. Institute of Tropical Forestry & Forest Products (INTROP), Universiti Putra Malaysia, MALAYSIA,
2. Faculty of Engineering, Universiti Putra Malaysia, MALAYSIA,
3. School of Chemical and Energy Engineering, Faculty of Engineering, Universiti Teknologi Malaysia, MALAYSIA,
4. Centre for Advanced Composite Materials (CACM), Universiti Teknologi Malaysia, MALAYSIA,

5. Technical University of Liberec CZECH REPUBLIC,
6. National Textile University, Faisalabad, PAKISTAN,
7. Andalas University, Padang, INDONESIA,
8. University of Mataram West Nusa Tenggara Indonesia, INDONESIA,
9. University of Jember, INDONESIA,
10. King Mongkut's University of Technology North Bangkok, THAILAND,
11. Kalasalingam Academy of Research and Education, INDIA,
12. Universidade Estadual de Londrina, BRAZIL,
13. University of Gambia, GAMBIA,

on 11 December, 2021. [Please check the International Advisory Scientific Committee Member Board at the Conference Link: https://sapc2021.com/international-advisory-scientific-committee/].

- Authorized as an International Organizing Committee member in the 3rd International conference on Energy and Power (ICEP2021), organized by College of Material Engineering, Chiang Mai University, Thailand and Zhejiang University, China in association with the Australian Society of Energy and Power (ASEP) on 18-20 November, 2021. [Please check the International Organizing Committee at the Conference Link: https://sites.google.com/view/3icep2020/home].

- Authorized as an International Scientific Committee member in the 1st International conference on Innovation in Engineering (ICIE'2020), organized by University of Minho – School of Engineering, Mechanical Engineering, Department Campus de Azurém, 4800-058, GUIMARÃES PORTUGAL on 28-30 June, 2021. [Please check the International Scientific Committee at the Conference Link: https://icieng.eu/committees/].

JOURNAL EDITORS

- Wuhan EditSprings Technology and Culture Co., Ltd

JOURNAL REVIEWER/LEARNT REFERRE

Reviewed various manuscripts for the following reputed Journals as per Publons database:

- Composites Part-B (Elsevier)
- International Journal of Production Research (Taylor's & Francis)
- Non-Linear Dynamics (Springer)
- Polymer Composites (Wiley)
- International Journal of Biological Macromolecules (Elsevier)
- Journal of Thermal Analysis & Calorimetry (Springer)
- Materials Research Express (IOP Science)
- 2D Materials (IOP Science)
- International Journal of Energy Research (Wiley)
- IEEE Access (IEEE)
- Journal of Materials Engineering and Performance (Springer)
- International Journal of Metal Casting (Springer)
- Engineering Research Express (IOP Science)
- Journal of Polymers and the Environment (Springer Nature)
- Materials Chemistry and Physics (Elsevier)
- Journal of Advanced Research (Elsevier)
- Science of the Total Environment (Elsevier)
- The International Journal of Advanced Manufacturing Technology (Springer)
- Tribology International
- Material's Today Journal (Elsevier)
- Measurement and Control (Sage)
- International Journal of Low-carbon technologies (Oxford Press)
- Environmental Progress (Wiley)
- Current Medical Imaging (Bentham Science)
- Current Alternative Energy (Bentham Science)

- Key Engineering Materials (Trans Tech)
- Journal of Production system and Manufacturing Science (Imperial Open Journal)
- Academic Exchange Information Centre, AI Scholar Expert Reviewer team (China)
- Bentham Science
- Pisco-med Publishers Singapore, Insights: Engineering and Technology Journal
- Materials Science Research India, an International peer reviewed research journal

EDUCATIONAL QUALIFICATIONS

Degree/ Certificate	**Institution/Board**	**Year**	**C.G.P.A./ Percentage**
P.hD. (Mechanical Engineering)	In collaboration with Council of Scientific and Industrial Research-CLRI, Chennai, Central Govt. and I.K. Gujral Punjab Technical University, Jalandhar city	2018 Onwards **(Thesis submitted)**	84.7%
ME/M-Tech (Mechanical Engineering)	D.A.V. University, Deemed University Jalandhar city	(2015-2017)	9.43 CGPA OR 94.3%
BE/B-Tech (Mechanical Engineering)	I.K. Gujral Punjab Technical University, Jalandhar city	(2011-2015)	82.8025%
H.S.C.	Police D.A.V. Public School, P.A.P. Complex, Jalandhar Cantt (C.B.S.E.)	(2011)	69.20%

S.S.C.	Police DAV Public School, PAP Complex, Jalandhar Cantt (C.B.S.E.)	(2009)	72.20%

IMMIGRATION APPLICATION NUMBER:

Applied for Canada immigration on Permanent Residency (PR) (File serial number (FSN): 503968).

THE INTERNATIONAL ENGLISH LANGUAGE TESTING SYSTEM (GENERAL IELTS):

- **Candidate Number:** 298260 (General Training)
- **Listening:** 6.5, **Reading:** 6.5, **Writing:** 6.5, **Speaking:** 6.5; **Overall Band Score:** 6.5
- **Common European Framework of Reference (CEFR Level):** B2 Level, Upper-Intermediate independent user
- **Test report form number:** 20IN298260SHAS855G
- **IELTS score Valid upto:** April 2023
- **Passport No.:** Z4612446

TECHNICAL SKILLS, INSTRUMENTAL KNOWLEDGE & COMPUTER COMPETENCIES SKILLS

Computational Skills: Proficiency and strong knowledge of Finite Element packages, specialized in numerical computing and image processing software's, Advanced knowledge of design and animation tools: Design of Experiments (DoE), MATLAB, MINITAB, Taguchi Orthogonal Array, ANOVA (1-way & 2-way), SPSS, Auto-CAD, ANSYS, Design, Analysis, Simulation and Modeling, Finite element Analysis (FEA), Most-2D (Oxy-Acetylene gas cutting Simulation software), Fastcam Simulation, Abaqus.

***Computer competences*:** Advances in MS office (Microsoft Excel, Power-point, Outlook, Microsoft Word); Vosviewer; Google Drive; Spreadsheets; E-Mail; Presentations; QuickBooks; Social Media; Web; Writing skills; Enterprise systems; Graphics; Advanced computer skills.

Laboratory and Instrumentation Skills: Specialized in handling and operating high temperature furnaces, Experience in the preparation of metallographic specimens, polishing and etching, Proficient experience in various material characterization methods, Hands on experience on Split-Hopkinson Pressure Bar Machine; Charpy Impact Test Machine; Brinell Hardness Tester Machine; High velocity gas gun machine; Universal Testing Machine (UTM); Micro Hardness Tester; Tool Makers Microscope; Friction and Wear Test Rig, Experience in handling and interpretation of Dynamic Mechanical Analysis (DMA), Pin-on-Disc or wear measuring Tribo-tester equipment, Thermo-gravimetric Analysis instrument, Differential Scanning Calorimetry instrument, Universal testing Machine (UTM), SEM, XRD, Spectroscopic (UV-Visible, Mass, IR, NMR), Compression Moulding Machine, Vacuum Assisted Resin Transfer Moulding (VARTM), Injection Moulding Machine, Extrusion, Calendering, KD2 Pro Analyzer KS1 Needle, Brookefield DV-111 Rheometer, Pycnometer, Ultra-Sonicator Water Bath, Rotameter, Talysurf Roughness Tester, Anemometer, Pressure, Temperature, Torque, Speed measuring devices, Impedance Tube or Kuntz Tube, Spectrum Analyzer, parallel plate capacitors for Dielectric constant, basics of Nuclear Magnetic Resonance (NMR) instrument etc.

SOCIAL SKILLS & COMPETENCIES

- Good expressing power
- Self- Starter & Team Leading
- Hard-worker
- Optimistic
- Good positive attitude in adverse conditions
- Self-motivating and easily adjustable to any environment

- Able to work under pressurized and flexible circumstances
- Managerial quality and Smart Working
- Making innovative and creative ideas
- Learning and analytical skills

GOVERNMENT PROJECT UNDERTAKEN

i. Studies on Leather Solid Waste - Polymer Composites for Acoustic Applications, a 3 Years project, Sectioned by SERB (DST) with funding of Rs. 32,97,740 Lakh.

ii. Studies on Leather solid waste reinforced thermosetting Polymer composites for high strength Structural applications, a 3 years project, Sanctioned by CSIR-Central Leather Research Institute (MLP-33) under Applied Research category with funding of Rs. 5,35,000 Lakh.

PROJECTS COMPLETED

- ***Project:*** Design and developed a Jet Tester experimental set-up to check the erosion wear & corrosion wear behaviour of coated and uncoated SS304, various metals as well as non-metals at various distinct angles and by varying impact velocities.

- ***Project:*** Fabricate an experimental set-up of a single pass cross-flow compact heat exchanger to enhance the Thermo-physical properties, Heat transfer characteristics & pressure drop characteristics by using Aluminium/water & Titanium/water Nanofluid in Automobile diesel engine car radiator & this nanofluid is used as a Nano-coolant by replacing conventional ethylene glycol coolant.

- ***Project:*** Fabricate Autonomous Virtual Smart Intelligent Vehicle based upon Dual Tone Multi Frequency (DTMF) Technology.

- ***Project*:** Evaluation of mechanical properties, thermal properties, Tribological properties and morphological properties of solid leather buffing dust reinforced polymer composites for engineering and other construction applications. In this project, we develop low-cost environmentally friendly manufacturing process for the conversion of hazardous solid wastes into some useful value-added products and value-added applications. **[Waste-to-Wealth principle]**.

- ***Project*:** Design and Development of double cam operated multipurpose punch press working prototype machine for various engineering applications.

- ***Project:*** Implementation of POKA-YOKE and Time-Study i.e. Tact Time and Cycle Time.

  Objective: To achieve zero-error by eliminating all defects and imperfections in the part and to maintain Jig time to time regularly maximise the production and encounter all defects. Time study ensures that if there is variation in part then we find that there is a possibility of increasing the production by using same resources.

  Description: In this project we have to apply different Poka-Yoke based upon principles i.e. electrically proximity sensors, Limit switches, Pin cyclinder and Pneumatic type Poka-Yoke to the parts. A piece is manufactured by various processes. So the piece will have to go through all that processes. We have fitted different function. We took a Poka-Yoke which sense a presence of a bolt. So if that Poka -Yoke sense that bolt then that process will occur otherwise that process will not occur. So this

technology will help us to achieve our aim of zero error. By time study we examine the actual time taken by operator for completing one cycle. We can increase the production by removing the waste time by doing some modification in the layout of jig. Hence in the same time we increase the production and increase the profit.

- ***Project:*** Control Plan and JBPS.

  Objective**:** To ensure that performance improvements made by the project team are sustained over time. The plan is created during the improve phase of define, measure, analyze, improve, control (DMAIC) approach or a similar phase of other methodologies. JBPS stands for "Jay Bharat Process Standardization". It is mainly for the operator. It is in the operator understanding language.

  Description**:** The CONTROL PLAN is created during the improve phase of define, measure, analyze, improve, control (DMAIC) approach or a similar phase of other methodologies. The project team should create the control plan along with the process owner and representation from all areas involved in the process. As the process changes or process knowledge increases and as measurement systems and implementation methods are evaluated and improved, the plan should be updated. JBPS contains number of spots, sequence of spots, weld time, electrode number, hold time and tell about the parts to be joined. We always keep JBPS at par with control plan. It should be always match so that we get good results like spots are in proper sequence, solid safe spot.

PROJECTS IN PROCESS

Project: Maximum utilization of solid wastes and natural fibers which were reinforced as filler in thermosetting hybrid polymer composites for various novel engineering and bio-medical applications.

Project: Design and development of low cost resin infusion moulding machine for producing good void free composite sheets with complex irregular geometries for various engineering applications.

INTERNSHIPS

Organisation: Worked as a trainer in Hindustan Hydraulic Pvt. Limited, Jalandhar city, Punjab state for six weeks (20 May-29 June 2013).

Description: I worked there as trainee to study sheet metal operations and various processes for manufacturing of Machine tool operations. Hindustan Hydraulics limited also has its own auto assembly unit so i also got privilege to see that.

CAREER OBJECTIVES

- Aspiring to achieve a challenging, dynamic and responsible position that will both utilize and strengthen the skills acquired during my knowledge development in a high-growth company with considerable advancement opportunities. Want to face and experience new opportunities and to overcome all obstacles and hurdles that come in way.

- I would like to contribute to the welfare of the society by sharing my knowledge and experience with others and also try to be a good citizen.

EXTRA CURRICULAR & WORKSHOPS ATTENDED

- Awarded as a Merit certificate by securing first position in the event Tech Mahotsav by innovating a Nanofluid as a coolant in car radiator entire set up organised by DAV University.
- Cleared Chan Oil International Private Limited interview, Singapore M.N.C. for Senior Mechanical engineer vacancy.
- Cleared an U.E.S (University entrance scheme) interview in an Indian Army.
- Cleared Sahara India Pariwar written examination and interview for Education professional job.
- Attended Various International conferences and Seminars organised by National Institute of Technical Teachers Training & Research centre (NITTTR) and Indian Federation of United Nation Association (IFUNA), Institution of Electronics & Telecommunication Engineers (IETE), Centre for Development of Advanced Computing (C-DAC) & Ministry of Human Resource Development of India etc.
- Attended the International Multi Track Conferences conducted by ISRO, AICTE, PTU & CSOI at CT Group of Institutions.
- Attended 2nd International conference at Bhai Gurdas Institute of Engineering & Technology conducted by CSIR, HRD Government of India.
- Attended 3rd National Conference on Engineering Applications-Accelerating Make in India (NCEA- 2017) conducted by St. Soldier Group of Institutions, AICTE, IGKPTU & HRD Government of India.
- Attended the two national level conference conducted by MIST.

- ❖ Attended the national level conference on “Advances on Computer Science” organised by GNA University.
- ❖ Attended the workshop on automobile manufacturing conducted by MCAR.

AWARDS & HONOURS

- ☯ Honoured in the domain of Research & Development (R&D) during COVID19 Pandemic from the **World Book of Records, London (United Kingdom)** as an Excellence & Commitment Awards in the field of Breakthrough Research. **[Reference Number: CC-103837 / Zurich / 13 August 2021]. [www.worldbookofrecords.uk].**

- ☯ Honoured as a **Young Scientist award-2018** from International Association of Research and Developed Organization (IARDO) organization as an Excellence Awards ceremony in the field of Research and academics organized by Gurukul Institute of Engineering and technology.

- ☯ Nominated and Shortlisted as a **Global Professional and Innovative Research Technologist** from the Society of Innovative Educationalist & Scientific Research Professional Chennai, Accredited with Innovative Scientific Research Professional Malaysia.

- ☯ **Twice** Honoured as an **Active Young Researcher award** (2017 & 2018) in the Research and Academics field of core Mechanical and Materials science Engineering from International Journal & A.R. Research Publications, Conference world etc.

- ☯ **Twice** Received **Best paper presentation awards** in 5th International Conference on Recent Development in Engineering Science, Humanities and Management held at (NITTTR) National Institute of Technical Teachers Training &

Research, Chandigarh, India on 16th April 2017 [ISBN: 978-93-86171-39-9] and International Conference on Research Developments in Applied Science, Engineering & Management (AEM- 2018) held at The Indian Council of Social Science Research (ICSSR) North West Regional Centre , Punjab University Campus, Chandigarh (India) on 18th March 2018 [ISBN:978-93-87793-07-1].

- Publish twenty two Research papers in various Scientific International reputed Double blind Peer Review Journals like Springer-JTAC (SCI & SCI-E indexed), JMSSE, IJETED, IJCAR, IJESRT, IJRSR, IJATES, IJRAT & IJARSE which are indexed by Science citation indexed (SCI), Elsevier Biblographic database, Science in (SCI in), Scopus, Federation of Indian Research & Indian Council of Materials Science and Research, Science Indexing, Science Indexing Service, Indian Citation Index (ICI), Web of Science, Thomson Reuters Research ID and Thomson Reuters Endnote, A Division of American Chemical Society (CAS), DOAJ, Sjournals, Research Gate, Mendeley, Scribd, Various international Universities library directories, Google Scholar, Global Series Directory, IDIIF etc & various others international indexing. Further still working on various Mechanical Research Projects, book chapters, patents/copyrights and strive to publish them in up comings well reputed SCI indexed International Journals.

- Publish thirty-three research papers in various international conferences which are organised by The University of New South Wales, Australia, SIAM College Technology, Thailand, Hyatt Regency Miami, Miami, FL, USA & other two papers were conducted by ISRO in IMTC and Bhai Gurdas Institute of Engineering & Technology.

- Publish nine Research Papers in various National conference organised by MIST (CTIEMT College), St. Soldier Group of Institutions & GNA University.
- Eight book chapters has also communicated to Springer for publications
- University topper (First position) in 1st semester and 2nd semester during M-TECH at DAV University.
- Awarded as a Merit certificate by securing first position in the event Tech Mahotsav by innovating a nanofluid as a coolant in car radiator entire set up organised by DAV University.
- Best student award in 12th standard in Academics.
- Appreciation first award in Bourn vita Quiz Competition.
- College Topper in 4th semester, 5th semester & 6th semester during B-TECH.
- Punjab Technical University (P.T.U) University topper (fourth position) in 6th semester.
- Cleared an U.E.S (University entrance scheme) interview in an Indian Army.
- Awarded as merit certificates from University & College in B-Tech (ME) & M-Tech (ME).

MEMBERSHIPS & SOCIETIES

- I am a lifetime member of an International association of Engineers (I.A.E.N.G.): Society of Mechanical Engineering with member number 221729.

- I am a lifetime member of an Honorary Rosalind Member of London Journals Press (UNITED KINGDOM) with membership ID #TR00445.
- I am Fellow member of Institute of Research Engineers & Doctors (I.O.S.R.D.) with Editorial Member (I.R.E.D.) ID: SM10100060656.
- I am Fellow member of an Universal Association of Mechanical and Aeronautical Engineers (U.A.M.A.E.) with Editorial Member ID: SM10100060656.
- I am a lifetime member of Mechanical International Association of Educators and Researchers (M.I.A.E.R.) with member number 180931.
- I am lifetime Senior member of Asian Society of Researchers (A.S.R.) with ASR Senior Member Number R218111802. R413333709
- I am lifetime member of International Organization of Scientific Research & Development (I.O.S.R.D.) with Editorial Member (E.I.O.S.R.D.) ID: E201812023. E341813041
- I am an Editorial Board member of Insights: Engineering & Technology Journal of Pisco-Med Publishers, Singapore.
- I am an Editorial Board member of American Journal of Mechanical and Materials Engineering (AJMME-Science Publishing Group Inc.), New York, USA.
- I am an Editorial Board member of Condensed Matter Physics Report of Whioce Publishers, Singapore.
- I am an Editorial Board member of International Journal of Engineering and Manufacturing Science (IJEMS), Research India Publishers, India.

- I am an Editorial & Scientific Board member of Technium Science Journals.
- I am an Editorial Board member of Journal of Polymer Science and Engineering, EnPress Publisher Editorial Office from USA.
- I am an Editorial Board member of Institute for engineering research and publication (I.F.E.R.P.) Journals.
- I am an Editorial Board member of International Journal of Advances in Applied Sciences.
- I am an Editorial Board member of Journal of World Architecture, BIQ-Byword (B.B.W.) Publisher from Australia.

PATENTS & COPYRIGHT FILLED

We fabricated two experimental set-ups one for checking thermo-physical properties & heat transfer characteristics through single pass cross flow compact heat exchanger. This above mentioned set-up fabricated by me and one of my team members will get copyright certificate from DAV University in a Tech Mahotsav event. Other set-up fabricated was Virtual Intelligent vehicle (VIVE) based upon DTMF Technology. Now we have filled a patent for VIVE. Hopefully after sometime we will get Patent number. But otherwise you can see our fabricated set-up in the following link:

http://m.facebbok.com/story.php?story_fbid=1498105516877500&substory_index=0&id+245766365444761

LANGUAGES KNOWN

English, Hindi, Punjabi, Himachali (Pahari)

HOBBIES

Reading literature in current research and review papers, Doing literature survey, Finding research gaps, Gathering knowledge on current trends and developments in science and technology, fiction novels (Sherlock Holmes series), going Gym for daily workout, listening to music, playing and watching cricket, watching Hollywood and Bollywood movies, to play with pets, gathering knowledge about new industrial and Engineering technology, planting trees.

CURRENT ANNUAL C.T.C.

My current annual salary is 3,60,000 INR with 25,000 as basic salary and 5,000 as House rent allowance (H.R.A.)

EXPECTED ANNUAL C.T.C.

Salary is not a big issue, particularly for me. My expected salary is something which fulfils my basic and social needs and moreover where I'll work independently with good research working environment.

REFERRES

1. Prof. (Dr.) Paramjeet Singh Bedi, Professor, Wollega University, Department of Engineering and Sciences, Nekemte, Ethiopia.
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PERSONAL DETAILS

Mother's Name: Mrs. Sonia Sharma

Father's Name: Mr. Kuldip Chand Shastri

Date of Birth: 23–11–1993

Gender: Male

I hereby declare that all the information stated above is true to best of my knowledge and belief. I take the responsibility of any mistakes in data if occur in future.

Place: Jalandhar

Shubham Sharma

RECENT SELECTED LIST OF PUBLICATIONS

SCIENTIFIC INTERNATIONAL JOURNALS

1. Amoljit Singh Gill, Sanjeev Kumar, Jujhar Singh, Vivek Agarwal, Shubham Sharma, "A Review of Recent Methods for Tool Wear Reduction in Electrical Discharge Machining", 2020, Surface Review and Letters (SRL)-World Scientific Publishers, https://doi.org/10.1142/S0218625X20300026.

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3. J Singh, S Sharma, "Optimization of process and operating parameters of H11 Die steel using L_{18} Taguchi Orthogonal Array processed through EDM", Nova Academic Publishing, 2018 [Book in press].

BOOKS EDITED:

1. I have successfully edited book as a Guest-Editor covering 159 papers (Both original articles, review and mini articles) based upon Materials science and Engg., Energy resources, Computational optimization and Modelling techniques etc themes from the, "Imam Al-Kadhum International Conference for Modern Applications of Information and Communication Technology (MAICT)" for the publication in the IOP Science: Journal of Physics. **Book DOI details:** [2020 J. Phys.: Conf. Ser. **1530** 011001 https://doi.org/10.1088/1742-6596/1530/1/011001]; **Link of published book:** [https://iopscience.iop.org/article/10.1088/1742-6596/1530/1/011001]

2. I have successfully edited book as a Guest-Editor covering 159 papers (Both original articles, review and mini articles) based upon Materials science and Engg., Energy resources, Computational optimization and Modelling techniques, Applied Sciences etc themes from the, "Iraqi Academics Syndicate International Conference for Pure and Applied Sciences (IICPS)" for the publication in the IOP Science: Journal of Physics. **Book DOI details:** [2021 J. Phys.: Conf. Ser. **1818** 011001 DOI:10.1088/1742-6596/1818/1/011001]; **Link of published book:** [https://iopscience.iop.org/issue/1742-6596/1818/1?fbclid=IwAR1YYBNAvtberVREqCt35k_0E7ipKQm60Sqkk1JUyr2pTql0U6vCKZSl5bo]

3. I have successfully edited book as a Guest-Editor covering 50 papers (Both original articles, review and mini articles) based upon

Computational optimization and Modelling techniques etc themes from the, "CFP Modern Application on Information and Communication Technology" for the publication in the Open Computer Science Journal: De-Gruyter Publisher. **Book details:** [https://www.degruyter.com/view/journals/comp/comp-overview.xml].

4. I have successfully edited book as a Guest-Editor covering 159 papers (Both original articles, review and mini articles) based upon Materials science and Engg., Energy resources, Computational optimization and Modelling techniques, Applied Sciences etc themes from the, "3rd International Scientific Conference of Engineering Sciences and Advances Technologies (IICESAT), College of Material Engineering, University of Babylon, Iraq in 4-5 June, 2021" for the publication in the IOP Science: Journal of Physics. **Book DOI details:** [2021 J. Phys.: Conf. Ser. 1973 (2021) 011001 DOI:10.1088/1742-6596/1973/1/011001]; **Link of published book:** [https://iopscience.iop.org/issue/1742-6596/1973/1] [https://iopscience.iop.org/issue/1742-6596/1973/1?fbclid=IwAR2hVx0Ww-2_utOfVA1qfxWRJZlqRhjqY8qFkPH2H-iX8Ytjxe3RXqsY_9o]

ON-HAND WORKSHOPS/SKILLS DEVELOPMENT COURSES/FACULTY DEVELOPMENT PROGRAMMES/PARTICIPATION IN SHORT TERM COURSES:

S.No.	Course's name	Sponsored and Conducted by the Institutes/Universities	Dates
1.	Additive Manufacturing with Interdisciplinary Applications (AMIA-20)	TEQIP-III by Dr. B.R. Ambedkar NIT Jalandhar	29 June - 03 July, 2020
2.	Hybrid Manufacturing Processes: Opportunities and Challenges (HMPOC-20)	TEQIP-III by Dr. B.R. Ambedkar NIT Jalandhar	06 July – 10 July, 2020
3.	Supply Chain Management,	TEQIP-III by Dr. B.R.	13 July – 17 July,

	Challenges and Strategies (SCMCS-20)	Ambedkar NIT Jalandhar	2020
4.	Industry 4.0 and Smart Manufacturing: Opportunities and Challenges" (ISMOC-20)	TEQIP-III by Dr. B.R. Ambedkar NIT Jalandhar	20 July – 24 July, 2020
5.	International virtual seminar on the Recent Advanced Materials in Energy Applications	Centre for Nanoscience and Nanotechnology, Sathyabama Institute of Science and Technology.	30 July-31July, 2020
6.	Reliability, Maintainability and Quality Issues in Process Industries	TEQIP-III by Dr. B.R. Ambedkar NIT Jalandhar	04- 08 August, 2020
7.	Material Characterization Techniques	TEQIP-III by Dr. B.R. Ambedkar NIT Jalandhar	24 to 28 August, 2020
8.	Advanced Energy Materials	TEQIP-III by Dr. B.R. Ambedkar NIT Jalandhar	12th -16th October 2020
9.	Multidisciplinary research innovation in engineering, science and technology for sustainable development	B.T. Kumaon Institute of Technology, Dwarahat	26th October-07th November 2020
10.	Writing Quality Technical Paper: Publisher's Perspective	I.K. Gujral Punjab Technical University in Collaboration with IEEE	May 20, 2021
11.	Aerospace Engineering Applications & Beyond	GNA University in collaboration with Human Resource Development Centre	29th & 30th May 2021
12.	Hands-on Workshop on Sophisticated Research Equipment (HWSRE-2021)	University Center for Research and Development, Chandigarh University and sponsored by Science and Engineering Research Board (SERB) under Accelerate Vigyaan “Karyashala” program.	7th to 13th June, 2021
13.	Advanced Materials & Manufacturing for Industry 4.0 (AMMI-2021)	Human Resource Development Centre, Faculty of Engineering, Design and Automation,	26th to 27th June 2021

		GNA University, Phagwara, Punjab.	

“A good leader always gives freedom to work and protects his fellow members by contributing his experience and skills towards the progressive growth and development of organization……!”