CURRICULUM VITAE

CV updated on: 30-03-2023

DR. SANJEEV KUMAR

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I am a person who believes in following the required schedule to achieve my goals and remain honest towards my duties. I always want to contribute with my best capabilities to complete the objectives assigned either to my team or me. I am very curious to learn new things and consider myself a creative and self-esteemed person.

ACEDIMIC QUALIFICATION

Degree	Specialization	Department	University/Institution	Marks	Year
Ph. D.	Welding metallurgy and Structure-Properties correlations	Metallurgical & Materials Engg.	***Indian Institute of Technology Roorkee (IITR), India***	Defence grade: A, A, B	July 2012 to Jan 2017
M. Tech.	Industrial metallurgy	Metallurgical & Materials Engg.	***Indian Institute of Technology Roorkee (IITR), India***	8.0 CGPA	2010-2012
B. Tech.	Mechanical Engineering	Mechanical Engineering	***AKGEC GZB UP /UPTU Lucknow, U.P. India***	68.06%	2005-2009

EXPERIENCE AND CURRENT JOB DETAILS

Post	Specialization	Department	University /Institution	Duration	Experience (Y, M)
Assistant Professor-I (AGP 8000)	Welding and Joining, materials design, kinetic precipitation, hot deformation, Structure-properties correlation of steels, Al, Ti, Ni based alloys, FEM, additive manufacturing, IOT applications.	Mechanical Engineering	***National Institute of Technology Raipur Chhattisgarh-492010***	22-10-2022 to till date	--
Assistant Professor-II (AGP 7000)	Welding and Joining, materials design, kinetic precipitation, hot deformation, Structure-properties correlation of steels, Al, Ti, Ni based alloys, FEM, additive manufacturing.	Mechanical Engineering	***National Institute of Technology Raipur Chhattisgarh-492010***	02-08-2021 22-10-2022	1Y 2M
Senior Post-Doc Researcher	Hyper alloyed duplex steel, Other steels, MatCalc	Institute of Materials Science and Technology	***TU Vienna, Getreidemarkt 9, Wien 1040 Austria***	June 2018 to July 2021.	3Y 1M
Postdoc Researcher	Physical & FEM simulation of Ti & Al alloys, Processing map.	Institute of material science, joining and forming	***TU Graz, Kopernikusgasse 8010 Austria***	May 2017 to April 2018	1Y

TAUGHT SUBJECTS

S. No.	Subject Name	Semester	Course	Status	Session
1	Engineering Graphics	1	B.Tech	Completed	2021-22 I
2	Engineering Graphics	1	B.Tech	Completed	2021-22 I
3	Manufacturing Science II	4	B.Tech	Completed	2021-22 II
4	Industry 5.0 (Under Process)	--	B.Tech	--	--
5	Industry 5.0		M.Tech	--	--

PROPOSED SUBJECTS

S. No.	Subject Name	Semester	Course	Type	Session
1	Industry 5.0	2nd	B.Tech	Open elective	--
2	Advances in Industry 5.0	7th	M.Tech	Open elective	--

RESEARCH GRANT STATUS

S. No	Title Name	Organization	Duration (Years)	Sactioned / sumitted Date	Status	Remarks
1	Synergetic impact of pioneer UVMC setup on weldability of 316Ti austenitic stainless steel and Inconel 718 superalloy welds	Research Seed Grant project, NIT Raipur	3	9-3-22/On going		--
3	Impact of Pioneer UVMC Setup on GTA Weldments of casted Ni-Fe Superalloy with different content of Boron	Start-UP Research Grant, SERB, DST, Gov of India	2	28-02-2022	Under review	Waiting for decision
3	Synergistic effect of leading UVMC setup and welding parameters on the weldability of newly designed Rene 65 and IN 939 superalloy welds for high temperature applications in the power sector	Central Electricity Authority, Ministry of Power, Gov. of India	5	30-11-2021	Proposed	Waiting for decision

OTHER SIMULATION COURSES

Course name	Affiliated by	Year
Pro-Engineer wildfire 3.0	CADD Centre Nodia	2007
CATIA V5 R14	CADD Centre Nodia	2007
Deform 2D/3D FEM simulation	IMAT, Graz University of Technology Austria	2017-2018
Matcalc basic and advanced course	MatCalc Engineering, Universität Technische Wien, Vienna Austria	2018-2019

RESEARCH DETAILS

Postdoc topic-Christian Doppler Lab for Interface precipitation of Engineering: IMAT, TU Vienna Austria

To embrace research into interfaces and elimination engineering, and to contribute to deepening the understanding and predictability and technological control of interface-specific mechanisms and phenomena in steel.

I worked on two sub-projects of CDL-IPE which one is on hyper duplex stainless steel with 'voestalpine Kapfenberg Austria', and the other one is on different grades of bainitic steel (aluminum and Si alloying elements) with voestalpine Linz, Austria.

Postdoc topic-FWF: IMAT, TU Graz Austria

Flow instabilities and flow localization of alloys (Titanium and Al alloys).

My task was related to hot deformation and hot torsion physical simulation of Ti-based alloy and Al-based alloy using Thermomechanical simulator, Gleeble®3800. In addition, the experimental results were implemented in the FEM simulation setup using Deform 2D/3D facility.

Ph. D Thesis- *The effect of weld thermal cycles on microstructure and mechanical properties in HAZ of an HY 85 steel.*

I completed my Ph.D. research work on welding metallurgy of high-strength steel which is currently being used in Navy INS Vikramaditya. The purpose of this research work was to find suitable welding parameters using multi-pass weld thermal cycles that are helpful for better mechanical properties in weldments. The welded structure and mechanical properties correlation were established using materials characterization and mechanical testing facilities.

M. Tech Thesis- Studies on weldability of martensitic stainless steel using the thermo-mechanical simulator.

The purpose of the research work was to repair the 13/4 Martensitic Stainless Steel Hydro Turbine Blades damaged during rainy season applications. For repairing, the fusion welding process is one of the most using techniques, where the selection of appropriate welding parameters is important to fill the eroded gap in the turbine blades. Thus, we tried to secure the amount of deterioration in mechanical properties of the HAZ region in base metal by using different preheat temperatures.

B. Tech Dissertation- Semi-automatic fusion welding machine.

The purpose of a semi-automatic platform for the SMAW welding process was to reduce the manpower for mass production object applications. This setup was established only for one electrode.

RESEARCH FILED

Welding Metallurgy, Structure-property correlations, Thermo Mechanical Processing (rolling and forging, severe plastic deformation) of steels and superalloys, Physical weld Simulation, Materials Characterization and mechanical testings, heat treatments of steels, develop CCT and TTT diagrams for different gardes of steels, FEM simulation, kinetic precipitation of steels, etc.

TECHNICAL SKILLS

Thermo Mechanical Simulator Gleeble 3800, Optical Microscope, FESEM, EBSD, TEM, EPMA, XRD Analysis, Mechanical Testing, origin, ImageJ, CCT software, Pro E, CATIA, Deform 2D/3D, MatCalc, Microsoft word and Excel etc.

AWARDS AND GRANTS

Date	*Awards/Grants*	*Organization*
21 Aug 2020	Appreciation letter for exceptional efforts in 2019	Editor in Chief, JMEP journal ASM Publication
22 Dec 2016	Travel grant for ICPFAM XXV, Auckland, New Zealand	Alumni Affairs, Indian Institute of Technology Roorkee, India
07 Dec 2016	Young Scientist Travel Grant	Science and Engineering Research Board, DST, New Delhi
17 May 2016	Very Good services	Senate member in Student Affairs Council, IIT Roorkee
01 Jan 2016	Best Residential Warden award	Among all the thirteen hostels of IIT Roorkee
20 Jul 2012	Scholarship for Ph. D 2012-2017	MHRD, Gov. of India
31 Jul 2010	Scholarship for M. Tech 2010-2012	MHRD, Gov. of India
April 2008	Best innovation award	ROBONOID, Inter technical Fest, AKGEC Ghaziabad.
23 Apr 2007	Third Position in Pro-Engineer	Among 38 students, CADD Centre Noida, India

ADDITIONAL RESPONSIBILITIES

Post	**Organization**	**Duration**	**Experience**
Residential Warden	Ph.D. hostel Azad Bhawan, IIT Roorkee	01-06-2013 to 01-12-2016	3.5 years
Research Assistant	Thermo Mechanical Simulator Gleeble®3800, IIT Roorkee India	07-2010 to 12-2016	6 years
Scientific staff	Thermo Mechanical Simulator Gleeble®3800, TU Graz Austria	01-05-2017 to 30-04-2018	1 year

Scientific staff	Thermo Mechanical Simulator Gleeble®1500, TU Wien Austria	12-06-2018 to date	3.2 years

COMPUTER SKILLS

- Basic
- Fundamental
- Proficient with Microsoft word, excel, and PowerPoint, etc.

LANGUAGE

- English
- Hindi
- Basic German (A1)

STUDENTS COMPLETED DEGREE/INTERNSHIP

Lina Bernard was a Master's student at Grenoble INP-Phelma France, who worked under me at TU wien Austria on "Effect of isothermal austenitizing temperature and transformation time on microstructural evolution of high Si- bainitic steel" from May to August 2019 (3 months).

REVIEWER AND EDITORIAL BOARD IN REUPATED JOURNAL

1. **Editorial member** in **SCIREA Journal of Materials**, Science Research Association (http://www.scirea.org/journal/EditorialBoard?JournalID=43000).
2. **The authorized reviewer** of **Journal of Materials Engineering and Performance, JMEP** (Springer).
3. **The reviewer of Materials Research Express,** since 2019**.**
4. **Review proposals** for **"NATIONAL RESEARCH FUNDING COMPETITION, FONDECYT",** National Fund for Scientific and Technological Development, Government of Chile, 2020**.**
5. **International advisory committee member** of International conference PFAM28, VIT (Vellore Institute of Technology) Chennai India, Dec 2020 (http://pfam28.com/about.php).
6. **Editorial member** in Journal of NanoScience Technology, Germany.

LECTURE DELIVERED

1. Received a **Certificate of Appreciation** for **delivering a lecture** at the E-Faculty development program on "**Application of Thermal Engineering in Manufacturing Industry**" which was organized by the Department of Mechanical Engineering of **GEC Raipur** and **Rustam Ji IT Tekanpur**, under **TEQIP III** on 21-25 Dec 2020.

WORKSHOP ORGANISED

1. 5 days online workshop on "**Office Automation**", 13-09-2021-17-09-2021, Department of Mechanical Engineering, National Institute of Technology Raipur, Chhattisgarh India.

JOURNAL/BOOK/CHAPTER/SPECIAL ISSUES DETAILS

1. **Sanjeev Kumar, Pradeep Kasyap, Chandan Pandey, B. Basu, S.K. Nath, "Role of heat inputs on microstructure and mechanical properties in coarse-grained heat-affected zone of bainitic**

steel", CIRP Journal of Manufacturing Science and Technology 35, 724-734 Nov 2021, ISSN, 1755-5817, https://doi.org/10.1016/j.cirpj.2021.09.002 (Impact Factor: 3.602).

2. **Sanjeev Kumar**, Ashutosh Sharma, Chandan Pandey, B. Basu, S. K. Nath, "**Impact of Subsequent Pass Weld Thermal Cycles on First-Pass Coarse Grain Heat-Affected Zone's Microstructure and Mechanical Properties of Naval Bainitic Steel"**, Journal of Materials, Engineering and Performances, pages 1-10 Sept 2021, ISSN 1059-9495 (Impact Factor: 1.819).
3. Sanjeev Kumar, **Sanjeev Kumar,** Chandan Pandey, Ayush Goel, **"Effect of post-weld heat treatment and dissimilar filler metal composition on the microstructural developments, and mechanical properties of gas tungsten arc welded joint of P91 steel"** International Journal of Pressure Vessels and Piping Volume 191, June 2021, 104373, ISSN: 0308-0161 (Impact factor: 2.028).
4. Yashwant Mehta, S. K. Rajput, Sanjeev Kumar **(corresponding author)**, "**Establish Time-Temperature-Transformation Diagram based on dilatometry results and microstructural evolutions in an AISI 1010 steel",** *Indian Journal of Engineering and Materials Sciences*, NISCAIR, June 2021, Vol 28-3, 234-239 ISBN 0975-1017 (SCI, Impact factor 0.57).
5. **Sanjeev Kumar**, S. Krisam, A. Jacob, F. Kiraly, R. Abart, A. Keplinger, E. Povoden-Karadeniz," **Microstructures and element distributions in an aged hyper duplex stainless steel and corresponding hardness variation**", *Materials & Design*, Vol. 194, Page:1-14, 12th July 2020, ISSN 0264-1275, https://doi.org/10.1016/j.matdes.2020.108951 (Impact factor 7.991).
6. Pravesh Kumar Singh, S. K. Rajput, **Sanjeev Kumar**, "**Prediction of HAZ width and toughness of HY85 steel using artificial neural network**", *Advances in Materials and Processing Technologies (Taylor and Francis)* 16 Dec 2020, Online ISSN: 2374-0698, DOI:10.1080/2374068X.2020.1860498.
7. **Sanjeev Kumar**, S. K. Rajput, Niranjan Kumar, S. K. Nath, "**Understanding Hot Workability and Flow Stress Prediction through Processing Map with Microstructural Correlation for HY85 Steel**", *Materials Performance and Characterization-ASTM International*, 9-2, 8 Nov. 2019, 134-149, E-ISSN: 2165-3992, https://doi.org/10.1520/MPC20190013 (Impact factor 0.67).
8. Maria Cecilia Poletti, Ricardo Buzolin, **Sanjeev Kumar**, Jules F. S. F. Thierry, Peng Wang, "**Microstructure evolution of Ti5553 after hot deformation at large and moderate strains**", *Materials Science Forum (Trans Tach Publication)*, Volume 941, 1443-1449, Dec 2018, ISSN: 1662-9752, https://doi.org/10.4028/www.scientific.net/MSF.941.1443 .
9. Niranjan Kumar, **Sanjeev Kumar**, Sunil Kumar Rajput, S. K. Nath, "**Modelling of flow stress and prediction of workability by processing map for hot compression of 43CrNi steel**", *ISIJ International J-Stage*, 57-3, 497-505, 23rd March 2017, ISSN 1347-5460, https://doi.org/10.2355/isijinternational.ISIJINT-2016-306 (Impact factor 1.65).
10. **Sanjeev Kumar**, S. K. Nath, "**Effect of heat input on impact toughness in the transition temperature region of weld CGHAZ of a HY 85 steel**", *Journal of Materials Processing Technology-Elsevier*, 236, 216-224, Oct 2016 ISSN 0924-0136, https://doi.org/10.1016/j.jmatprotec.2016.05.018, (Impact factor 5.551).

11. **Sanjeev Kumar**, S. K. Nath, Vinod Kumar, "**Isothermal Transformation Behavior of A Low Carbon HY 85 Steel**", *Metallography, Microstructure, and Analysis-Springer,* 5-3, 264-271, June 2016, ISSN: 2192-9270, https://doi.org/10.1007/s13632-016-0283-z.
12. **Sanjeev Kumar**, S. K. Nath, Vinod Kumar, "**Continuous cooling transformation behavior in the weld coarse-grained heat-affected zone and mechanical properties of Nb-microalloyed and HY 85 Steels**", *Materials & Design (Elsevier)*, 90, 177-184, 15 Jan 2016. ISSN 0264-1275, https://doi.org/10.1016/j.matdes.2015.10.071 (Impact factor 7.991).
13. **Sanjeev Kumar,** S. K. Nath, "**Effect of weld thermal cycles on microstructures and mechanical properties in simulated heat affected zone of a HY 85 steel**", *Transactions of Indian Institute of Metals-Springer,* 70-1, 239-250, May 2016, ISSN: 0975-1645, https://doi.org/10.1007/s12666-016-0880-1, (Impact factor 1.499).
14. **Sanjeev Kumar**, S. K. Nath, Vinod Kumar, "**Effect of Single and Multiple Thermal Cycles on Microstructure and Mechanical Properties of Simulated HAZ in Low Carbon Bainitic Steel**", *Materials Performance and Characterization-ASTM International*, 4-3, 365-380, 17 June 2015 E-ISSN: 2165-3992, https://doi.org/10.1520/MPC20150007, (Impact factor 0.67).
15. **Sanjeev Kumar**, G. P. Chaudhari, S. K. Nath, B. Basu, "**Effect of Preheat Temperature on Weldability of Martensitic Stainless Steel**", *Materials and Manufacturing Processes (Taylor and Francis)***,** 27, 1382-1386, 26 Nov 2012, Print ISSN: 1042-6914 Online ISSN: 1532-2475, https://doi.org/10.1080/10426914.2012.700150 (Impact factor 3.942).

Book details

Edited…..

1. Dr. **Sanjeev Kumar**, Book with entitled "**Materials Flow Analysis**", ISBN: 978-1-83962-957-0, Print ISBN: 978-1-83962-956-3, eBook (PDF) ISBN: 978-1-83962-964-8, Publisher Intechopen Publication London UK, November 2021, https://www.intechopen.com/books/10055 .
2. Dr. Ashutosh Sharma, Dr. **Sanjeev Kumar,** and Prof. Zoia Duriagina, Book with entitled "**Engineering Steels and High Entropy-Alloys**", ISBN: 978-1-78985-948-5, Print ISBN: 978-1-78985-947-8, Publisher Intechopen Publication London UK, 24th June 2020, DOI: 10.5772/intechopen.84991.

Special issues

3. Dr. Ashutosh Sharma, Dr. Ashok Kumar Srivastava, Dr. Rajshekhara Shabadi, Dr. Zoia Duriagina, and Dr. **Sanjeev Kumar,** "Special issue on "**Multi-Functional Coatings and Nano-Materials**", **Crystal** Journal, MDPI (Under process).

Book Chapters

1. Neeraj Kumar, M. Kalyan Phani, Pankaj Chamoli, M.K. Manoj, Ashutosh Sharma, Waqar Ahmed, Ashok Kumar Srivastava, **Sanjeev Kumar**, Chapter 10 - **Nanomaterials for advanced photovoltaic cells**, book "**Emerging Nanotechnologies for Renewable Energy: Micro and Nano Technologies"**

Elsevier, 239-258, 19 Feb 2021, ISBN 978-0-12-821346-9, https://doi.org/10.1016/C2019-0-01919-X.

2. **Sanjeev Kumar**, Sunkulp Goel, Ashutosh Sharma, Chandan Pandey, "**Chapter 8: Direct Energy Deposition"** under book "**Advances in Additive Manufacturing Processes**" Publisher Bentham Science Publishers, **ISBN: 978-981-5036-34-3 (Print), 978-981-5036-33-6 (Online), DOI:** 10.2174/9789815036336121010101, Chapter 8, 162-177, April 2021.
3. **Sanjeev Kumar**, E. Povoden-Karadeniz, "**Plastic deformation behavior of metals during manufacturing processes: A review**", Materials Flow Analysis", ISBN: 978-1-83962-957-0, Print ISBN: 978-1-83962-956-3, eBook (PDF) ISBN: 978-1-83962-964-8, Publisher Intechopen Publication London UK, 1-18 April 2021, DOI: 10.5772/intechopen.97607.
4. **Sanjeev Kumar**, "Isothermal transformation behavior and microstructural evolution of Micro alloyed steel" in the entitled book "**Engineering Steels and High Entropy-Alloys**", ISBN: 978-1-78985-948-5, Print ISBN: 978-1-78985-947-8, Publisher IntechOpen Publication London UK, Chapter 2, Page 27-38, 18 Nov. 2019, DOI: 10.5772/intechopen.85900.

NATIONAL / INTERNATIONAL CONFERENCES

Proceedings Details

1. **Sanjeev Kumar**, S. Krisam, A. Keplinger, E. Povoden-Karadeniz, "**Analysis of sigma formation mechanisms in aged hyper duplex steel**", In Contributed Papers from Materials Science & Technology 2019, 568-574. Paper presented at MS&T19, Portland, Oregon, USA. Warrendale, PA: Materials Science & Technology, 29 Sept-3 Oct 2019, DOI 10.7449/2019/MST_2019_568_574, https://www.internetbookstorepro.com/product/10-7449-2019-mst_2019_568_574/.
2. **Sanjeev Kumar,** S. K. Nath, "**Microstructure and mechanical properties in various regions of simulated heat affected zone of a HY 85 steel**" PFAM XXV, University of Auckland, New Zealand, 352-357, 22–25 Jan 2017.
3. Shubham Srivastava, Sunil Kumar Rajput, **Sanjeev Kumar**, Dharmendra Singh, "**Effect of heat treatment and uniaxial deformation on thermal stability and wear behavior of AA 2014 alloy**", International Conference on Materials Processing and Characterization, Gokaraju Rangaraju InstGitute of Engineering and Technology, Hyderabad, India, 17-19 Mar 2017, *Elsevier Materials Today Proceedings* 5, 3610–3617, 24th March 2018 ISSN 2214-7853, https://doi.org/10.1016/j.matpr.2017.11.611.
4. **Sanjeev Kumar**, S. K. Nath, "**Effect of peak temperatures on microstructure and mechanical properties of weld simulated heat-affected zone for Nb-microalloyed steel**", International conference SIMPRO 16, RDCIS SAIL Ranchi, 527-533, 10-12 Feb 2016.
5. Niranjan Kumar, **Sanjeev Kumar**, S. K. Nath, "**Determination of Zener-Hollomon parameter of A Low Alloy Medium Carbon Steel under hot compression physical simulation**", International conference SIMPRO 16, RDCIS SAIL Ranchi, 346-352, 10-12 Feb 2016.

6. **Sanjeev Kumar**, S. K. Nath, "**Studies on Simulated Single Pass HAZ Thermal Cycle in 18mm Thick Micro Alloyed Steel**", Conference proceeding of Processing & Fabrication of Advanced Materials, PFAM-XXIII, MIED IIT Roorkee, Vol. 2, 916-923, 5-7 Dec 2014.
7. **Sanjeev Kumar**, S. K. Nath "**Studies on Microstructure and Mechanical Properties of Simulated Heat Affected Zone in a Micro Alloyed Steel**", ICMMSE 2014: International Conference on Metallurgy, Materials Science and Engineering Venice, Italy 14-15 August 2014, *International Journal of Chemical, Molecular, Nuclear, Materials and Metallurgical Engineering,* 2014, 8(9), 1056-1059, ISSN 1307-6892.
8. **Sanjeev Kumar**, G.P. Chaudhari, S.K. Nath, B. Basu, "**Heat Affected Zone (HAZ) studies of martensitic stainless steel using Thermo Mechanical Simulator**", International Welding Symposium IWS -2K12, DVS, IWS Trichy is organized in Bombay, Volume 1, 287-293, 30 Oct-1 Nov 2012.
9. **Sanjeev Kumar**, G.P. Chaudhari, S.K. Nath, B. Basu, "**Simulation studies on Weldability of martensitic stainless steel**", Symposium on joining of materials SOJOM 2012, IWS Trichy, ICA19, volume 1, 1-6, 19-21 January 2012.

Abstracts

10. Sourabh Pratap Singh, Shubham Vishwakarma, Shubham Kumar Sundram, Shail Kumari, **Sanjeev Kumar,** S.K. Nath, "Finite Element Simulation of Hot Deformed high strength steel using Deform 3D FEM simulation, AMPCO'22, Advances in Materials & Processing: Challenges &Opportunities, MMED IIT Roorkee, 17-19 Oct 2022.
11. **Sanjeev Kumar**, Roman Schuster, Tomasz Wojcik, A. Keplinger, E. Povoden-Karadeniz, "**Orientation relationships between secondary and primary phases in aged hyper duplex steel**", THERMEC 2020-International Conference on Processing and Manufacturing of Advanced Materials, Austria Centre Vienna-Austria, Page 375, May 10-14, 2021.
12. Ricardo Henrique Buzolin, Friedrich Krumphals, Alfred Krumphals, Michael Lasnik, **Sanjeev Kumar**, Cecilia Poletti, "**Modelling the hot deformation behavior of a Ti5553 alloy**", Advance Materials Science Day - 2018 - Graz University of Technology, Graz, Austria, 21 Sep 2018.
13. **Sanjeev Kumar**, S.K. Nath, B. Basu, "**Physical simulation of heat-affected zone of high strength structural steel**", jointly organized by 6th GUWI 2017 and NC-PSTMPM; Department of Metallurgical Engineering and Materials Science, IIT Bombay, page 19, 15-17 June 2017.
14. **Sanjeev Kumar,** S. K. Nath, "**Effect of multi-pass weld in intercritically reheated coarse grain heat-affected zone on microstructure and mechanical properties of a HY 85 steel**", 11th Asian Thermo-physical Properties Conference, ATPC 2016, Yokohama, JAPAN, OS17-21, page 88, 2-6 Oct 2016.
15. **Sanjeev Kumar,** S. K. Nath, "**Influence of peak temperature during weld simulation thermal cycle on microstructure and mechanical properties in weld HAZ of a low carbon quenched and tempered steel**", THERMEC' 2016-International Conference on Processing and

Manufacturing of Advance Materials, Graz University of Technology, Austria, paper code 554, page 321, 29 May-3 June 2016.

16. **Sanjeev Kumar**, S. K. Nath, "**Effect of peak temperature on microstructure and mechanical properties of simulated weld heat-affected zone in a micro-alloyed steel**", National conference on Thermo-mechanical processing of steel and 5th Gleeble User Workshop India (GUWI 2015), CSIR-NML Jamshedpur, TP-42, Page number 52, 6-7 Aug 2015.
17. **Sanjeev Kumar**, S.K. Nath, "**Effect of peak temperatures on the weldability of the Heat Affected Zone of HSLA steel**", ICMMPPA-2014: OPJIT Raigarh India, 8-10 Jan 2014.
18. **Sanjeev Kumar**, S.K. Nath, "**HAZ Simulation Studies of HSLA Steel Using Thermo-Mechanical Simulator**", 67th NMD ATM of IIM, IT-BHU Page No. 179, 12 Nov 2013.

Research work under pipeline

1. **Sanjeev Kumar**, Roman Suchter, Erwin Povoden-Karadeniz, "**Examination of orientation relationships between parent and intermetallic sigma phase of aged HDSS 27Cr7Ni4.8Mo0.35N steel",** (submit next month)**.**

INVOLVEMENT IN VARIOUS SPONSORED PROJECTS

Sponsored projects completed on Thermo-Mechanical Simulator and processings…

1. Hot compression test of Ni- Titanium alloy, ***ISRO Hyderabad***, April 2015 – June 2015.
2. CT, TTT, and CCT of High carbon low alloy steel, ***Automotive Research Association of India***, January 2014 – February 2014 (2 months).
3. Weld Simulation of Copper alloy materials, ***Crompton Greaves Mumbai***, November 2013 – February 2014 (4 months).
4. Hot compression test of low alloyed Steel, ***Tata Steel Jamshedpur***, September 2012 – November 2013 (1 year 3 months).
5. Compression test Simulation of steel, ***Larsen & Toubro Mumbai branch***, June 2012 – June 2013 (1 yr).
6. Weld HAZ Simulation of micro-alloyed steel, ***NMRL DRDO Thane***, July 2011 – January 2012 (7 months).
7. Weld HAZ Simulation of austenitic Stainless steel, ***National Metallurgical Laboratory Jamshedpur***, June 2011 – January 2012 (8 months).
8. Hot compression test, HAZ test, and thermal cycling for different grades of steel and Aluminium and Zirconium alloys for B. Tech, M. Tech, and Ph. D students of ***Indian Institute of Technology Roorkee India*** from 2011 to 2017 (7 yrs).

EXTRA CURRICULAR

1. Security member in Annual convocation from 2013 to 2016.
2. Security member in cultural (Thomso) and technical (Cognizance) festivals from 2012 to 2016.
3. Coordinating committee of Bhawans (CCB) member from 2013 to 1 Dec 2016.

4. Committee member in the orientation program (B. Tech and M. Tech) from 2013 to 2016.
5. Committee member in the mess of Azad Bhawan from 2011 to 1 Dec 2016.
6. Committee member in Bhawan day 2011-2016.
7. Bhawan Secretary has appointed by DOSW, IIT Roorkee in March 2013.
8. Organizing secretary in Bhawan day 2013.
9. Volunteer in AMPCO 2012 organized by MMED, IIT Roorkee.
10. Won 2nd position microstructure Contrast 2011 in the national conference organized by MMED, IIT Roorkee in Nov 2011.
11. Coordinator of the solo song in vibrations (cultural Fest) AKGEC Ghaziabad (2009).
12. Won 2nd prize in the Ghost of Chenobyl technical Fest is organized by IIT Guwahati in 2008.
13. Participation certificate in Aqua Hustle Technical Fest organized by IIT Guwahati in 2008.
14. Won the 3rd prize in float the boat was organized by Conatus Society AKGEC Ghaziabad (2006).
15. Deliver presentation on "Magnetic Levitation for Train" under Seminar AKGEC GZB (2007-08).

VOCATIONAL TRAINING

1. 1-month vocational training Radico Khetan Limited Rampur in utility and maintenance department June 2008.

2. 1-month vocational training Peahrey Lal & Sons Ltd Mohan Nagar Uttar Pradesh in assembly department 2007.

RECOMMENDATION REFERENCES

1 **Dr. S.K. Nath**
Retired Professor, *Metallurgical and materials engineering, Indian Institute Technology Roorkee, 247667 Uttarakhand (India)*
E-mail: indiafmt@gmail.com, indiafmt@iitr.ac.in, sumeer.nath@mt.iitr.ac.in
Contact +91-1332-285722 Perosnal: +919897298300

2 **Dr. G. P. Chaudhari**
Professor and Head, *Metallurgical and materials engineering, Indian Institute Technology Roorkee, 247667 Uttarakhand (India)*
E-mail: g.chaudhari@mt.iitr.ac.in
Contact +91-1332-285524.

3 **Dr. Vinod Kumar**
Chief General Manager (Steel Products), *R & D Centre for Iron & Steel, Steel Authority of India Ltd. Ranchi - 834002 (Jharkhand) INDIA*
E-mail: vkumar1382@gmail.com, vkumar@sail-rdcis.com
Contact: +91 651 2411132 - 2305 (Ext.), +91 651 2411148

4 **Dr. techn. Poletti, Maria Cecilia,**
Assoc. Professor, *Institute of Materials Science, Joining and Forming, Graz University of Technology Austria, Kopernikusgasse 24, 8010 Graz, Austria*
Email: cecilia.poletti@tugraz.at,
*Contact +43 (316) 873 – **1676***

5 **Dr. Sc. Povoden-Karadeniz Erwin**
Associate Professor, *Institute of Materials Science and Technology, TU Wien, E308 Getreidemarkt 9, Building BE, 6. Stock, A-1060 Wien, Austria*
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PERSONAL DETAILS

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I, Sanjeev Kumar hereby acknowledge that the aforesaid information given is correct and to the best of my knowledge.

Date :
Place : Raipur India

(SANJEEV KUMAR)