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## LIST OF PUBLICATIONS

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1. **Nidhi Chaubey** and Nikhil Kumar, Effect of thermomechanical processing on mechanical properties and microstructural evolution of Al-Mg-Zn alloy, Mater Today Communication 40 (2024). <https://doi.org/10.1016/j.mtcomm.2024.109426>.
2. **Nidhi Chaubey** and Nikhil Kumar, Fatigue crack growth rate investigation of cold rolled and aged Al-Mg-Zn alloy, International Journal of Fatigue 198 (2025). <https://doi.org/10.1016/j.ijfatigue.2025.108968>.
3. **Nidhi Chaubey** and Nikhil Kumar, Influence of NaCl Environment on Elastic-Plastic Fracture behavior of Al-Mg-Zn Alloy (Submitted)
4. **Nidhi Chaubey** and Nikhil Kumar, Fatigue crack growth rate behaviour of Al-Mg-Zn Al alloy under 3.5 % NaCl environment (Submitted)

### CONFERENCES:

- ❖ **Poster presentation** in Indian Institute of metals annual technical meeting (IIM ATM) conference on title “**Effect of Thermomechanical Processing on Elastic plastic ( $J_{1c}$ ) fracture toughness of Al-Mg-Zn alloy**” (20<sup>th</sup> to 22<sup>nd</sup> November 2024) at Gandhi Krishi Vigyana Kendra Bengaluru.
- ❖ **Poster presentation** in Indian Institute of metals annual technical meeting (IIM ATM) conference on title “**Effect of Thermomechanical Processing on 7075 Al alloy: Mechanical and Microstructure Investigation**” (22<sup>nd</sup> to 24<sup>th</sup> November 2023) at Kalinga Institute of Industrial Technology (KIIT), Bhubaneswar, Odisha
- ❖ **Participated in International conference on higher education, research and innovation-ICHERI’22** (July 28<sup>th</sup> to 30<sup>th</sup> 2022) virtual mode
- ❖ **Participated in International conference on Advanced material and mechanical characterization (ICAMMC)** organised by department of physics and nanotechnology and department of mechanical engineering SRM institute of science and technology in association with IISC Bangalore (2<sup>nd</sup> to 4<sup>th</sup> December 2021) virtual mode

**WORK SHOPS AND SHORT TERM COURSES:**

- ❖ The Short-Term Course on “**An Introduction to Fracture Mechanics**” Organised through IIM ATM (10<sup>th</sup> to 12<sup>th</sup> June 2025) virtual mode
- ❖ The Short-Term Course on “**XRD Data Refinement via Rietveld Analysis using Fullprof and Breadth Softwares**” Organised through Centre for Advanced Computational Research in New Delhi (8<sup>th</sup> to 14<sup>th</sup> April 2025) virtual mode
- ❖ The Short-Term Course on “**Metal and Alloys for Defense Applications**” Organised through INTERDISCIPLINARY DATA ANALYTICS AND PREDICTIVE TECHNOLOGY (IDAPT) Under NATIONAL MISSION ON INTERDISCIPLINARY CYBER PHYSICAL SYSTEM (NM-ICPS) (2<sup>nd</sup> to 6<sup>th</sup> March 2025) at IIT(BHU)
- ❖ The Short-Term Course on “**Environmental Degradation (Corrosion) and Protection**” Organised through Department of Metallurgical and Materials Engineering, Indian Institute of Technology Kharagpur (16<sup>th</sup> to 17<sup>th</sup> January 2025) virtual mode
- ❖ The Short-Term Course on “**Research methodology: Tools and Techniques**” Organised through Sardar Vallabh Bhai National Institute of Technology Surat (5<sup>th</sup> to 9<sup>th</sup> September 2022) virtual mode
- ❖ Seven days’ workshop on “**Operation of atomic absorption spectrometer, total organic carbon analyser, Acoustic dropper current profiler and Epifluorescence**” Organised through Synergistic Training program Utilizing the Scientific and Technological Infrastructure (STUTI) (23<sup>rd</sup> to 29<sup>th</sup> August 2022) at Goa University
- ❖ Seven days’ workshop on “**Characterization using sophisticated instrument**” Organised through Synergistic Training program Utilizing the Scientific and Technological Infrastructure (STUTI) (8<sup>th</sup> to 14<sup>th</sup> August 2022) at Visvesvaraya