Gmail **Dr. Aparajita Mukherjee <mukherjeeaparajita29@gmail.com>**

Fwd: Acceptance of Abstract for Presentation at RAMPC 2026 during 18-20th May 2026 at NIT Jamshedpur

1 message

Sankha Subhra Ghosh <sankha388@gmail.com> Thu, Jul 23, 2026 at 3:38 PM
To: "Dr. Dwaipayan De" <dwaipayan88@gmail.com>, "Dr. Aparajita Mukherjee" <mukherjeeaparajita29@gmail.com>

---------- Forwarded message ---------
From: **RAMPC-2026 NIT Jamshedpur** <24rampc@gmail.com>
Date: Mon, 27 Apr, 2026, 07:04
Subject: Acceptance of Abstract for Presentation at RAMPC 2026 during 18-20th May 2026 at NIT Jamshedpur
To: Sankha Subhra Ghosh <sankha388@gmail.com>

Dear Sir/Madam,

Greetings from the Organizing Committee of **RAMPC 2026** (International Conference on Recent Advances in Materials Processing and Characterisation).

We are pleased to inform you that your abstract titled "Unsupervised Anomaly Detection in Industrial Welding: A Zero-Shot Residual Mapping Framework using Minimalist Feature Remapping for Industry 4.0**" with paper ID RAMPC2026-029** has been **accepted for presentation** at RAMPC 2026, scheduled to be held from **18th to 20th May 2026** in **hybrid mode** at the National **Institute of Technology Jamshedpur, India**.

Your work has been reviewed by the technical committee and found to be relevant and significant to the conference themes. You are invited to present your research in the appropriate technical session (details to be shared soon).

Kindly note the following:

- At least one author must register for the conference to confirm the presentation.
- Detailed guidelines regarding presentation format (oral/poster), schedule, and submission of a full-length paper (for proceedings consideration in Springer/Scopus-indexed volume) are given on https://rampc.in/.
- Please adhere to the important deadlines that will be communicated via email and the conference website.
- If you need accommodation, please revert to this email. We will try to assist you.

We look forward to your valuable participation and contribution towards making RAMPC 2026 a great success.

If you have any queries, please feel free to contact us.

Reviewers' Comments:

The manuscript presents an unsupervised deep learning framework for weld defect detection using a minimalist feature remapping approach. The topic is relevant to the conference; however, some improvements are required.

1. The use of VGG16 with Mahalanobis distance for anomaly detection is already reported in the literature. The authors should highlight the novelty and contribution of their framework.

2. The study uses a very small dataset (only 9 training samples), which raises concerns about the robustness of the model.

3. No comparison with state-of-the-art methods; benchmarking against standard datasets or models is needed.

4. Some methodological steps (e.g., feature remapping and residual mapping) need explanation.

5. Language and grammar need improvement.

6. Figures (heatmaps, plots) require explanation.

7. Accuracy (92%) should be supported with additional metrics (precision, recall, F1-score).

8. Some repetition is observed in the introduction and conclusions.

9. The conclusion should better highlight the practical industrial impact and be shorter and crisper.

10 Only 10 pages are allowed.

11. Resubmit the manuscript in PDF and Word files along with a plagiarism report.

With best regards,

Organizing Committee
RAMPC 2026

https://www.rampc.in/

Department of Metallurgical and Materials Engineering
National Institute of Technology Jamshedpur

Gmail **Dr. Aparajita Mukherjee <mukherjeeaparajita29@gmail.com>**

Fwd: Schedule of Presentation at RAMPC 2026 during during 18-20th May 2026 at NIT Jamshedpur

1 message

Sankha Subhra Ghosh <sankha388@gmail.com> Thu, Jul 23, 2026 at 3:38 PM
To: "Dr. Dwaipayan De" <dwaipayan88@gmail.com>, "Dr. Aparajita Mukherjee" <mukherjeeaparajita29@gmail.com>

---------- Forwarded message ---------
From: **RAMPC-2026 NIT Jamshedpur** <24rampc@gmail.com>
Date: Thu, 14 May, 2026, 23:23
Subject: Schedule of Presentation at RAMPC 2026 during during 18-20th May 2026 at NIT Jamshedpur
To: Prakash Sarkar <prakash.met@nitjsr.ac.in>, <monalisamet@nitjsr.ac.in>, krishna met <krishna.met@nitjsr.ac.in>

Dear Sir/Madam,

Greetings from the Organizing Committee of **RAMPC 2026** (International Conference on Recent Advances in Materials Processing and Characterisation).

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If you have any queries, please feel free to contact us.

With best regards,
Organizing Committee

RAMPC 2026

https://www.rampc.in/

Department of Metallurgical and Materials Engineering
National Institute of Technology Jamshedpur

3 attachments

Program Schedule-RAMPC 2026.pdf
196K

Invitation RAMPC 2026.pdf
8013K

RAMPC Presentation Schedule.pdf
18K

Date	Time (IST zone)	Paper ID	Name
18-05-2026	2:15pm-2:25pm	RAMPC2026-005	Dr RamKrishna/Arvind Kumar
	2:25pm-2:35pm	RAMPC2026-006	Chhatar Singh Mewada
	2:35pm-2:45pm	RAMPC2026-007	Dr Monalisha Mandal
	2:45pm-2:55pm	RAMPC2026-008	Amit Patel
	2:55pm-3:05pm	RAMPC2026-009	Sunny Chakroborty/Dr Madhumanti
	3:05pm-3:15pm	RAMPC2026-011	Nandita Gupta
	3:15pm-3:25pm	RAMPC2026-012	Prahalad Badkar
	4:15pm-4:25pm	RAMPC2026-013	Sanjay Gupta
	4:25pm-4:35pm	RAMPC2026-015	Manju
	4:35pm-4:45pm	RAMPC2026-017	Shashi Bhushan Kumar
	4:45pm-4:55pm		
	5:00pm-5:10pm	RAMPC2026-019	Nandita Gupta
	5:10pm-5:20pm	RAMPC2026-020	Newton Kumar Singh
	5:20pm-5:30pm	RAMPC2026-021	Sunil Kumar
	5:30pm-5:40pm	RAMPC2026-022	Narendra Kumar
	5:40pm-5:50pm	RAMPC2026-023	Ela Rout (Aniket Sahoo)
	5:50pm-6:00pm	RAMPC2026-024	Richa Pandey
19-05-2026	10:30am-10:40ar	RAMPC2026-027	Abhiraj Sachin Yadav Deshmukh
	10:40am-10:50ar	RAMPC2026-028	Dr. M Pratyusha
	10:50am-11:00ar	RAMPC2026-029	Sankha Subhra Ghosh
	11:00am-11:10ar	RAMPC2026-030	Dr. Dharmendra Sapariya
	11:10am-11:20ar	RAMPC2026-031	Sidharth
	11:20am-11:30ar	RAMPC2026-032	Saidaiah Kalakonda
	10:30am-10:40ar	RAMPC2026-033	Vikram Singh
	10:40am-10:50ar	RAMPC2026-034	Sahil Bhadoo
	10:50am-11:00ar	RAMPC2026-036	Prof Sahai
	11:00am-11:10ar	RAMPC2026-037	Santosh Chauhan
	11:10am-11:20ar	RAMPC2026-038	Harpreet Singh
	11:20am-11:30ar	RAMPC2026-039	Ankush Raina
	12:00pm-12:10pr	RAMPC2026-040	Dr. Vinayak S Hiremath
	12:10pm-12:20pr	RAMPC2026-041	Dr Rohit Singh
	12:20pm-12:30pr	RAMPC2026-042	Anju Kaushal
	12:30pm-12:40pr	RAMPC2026-043	Ajeet Mishra
	12:40pm-12:50pr	RAMPC2026-044	Jeetendra Mishra
	12:50pm-1:00pm	RAMPC2026-057	Mukesh Ramani
	12:00pm-12:10pr	RAMPC2026-046	Abhay Lamb
	12:10pm-12:20pr	RAMPC2026-047	Suyash Yelatwar
	12:20pm-12:30pr	RAMPC2026-048	Dashan Bhatt
	3:00pm-3:10pm	RAMPC2026-055	Pankaj Siwach
	3:10pm-3:20pm	RAMPC2026-049	Anushree Dutta
	3:20pm-3:30pm	RAMPC2026-050	Neelu Choudhary
	3:30pm-3:40pm	RAMPC2026-051	Jichil Majhi
	3:40pm-3:50pm	RAMPC2026-052	Jichil Majhi
	3:50pm-4:00pm	RAMPC2026-053	Anushree Dutta
	4:00pm-4:10pm	RAMPC2026-054	Renu Kumari
	4:10pm-4:20pm	RAMPC2026-056	DrNaresh Prasad/Abdul Rahman
	4:10pm-4:20pm	RAMPC2026-010	Dr. Vineet Chak

Unsupervised Anomaly Detection in Industrial Welding: A Zero-Shot Residual Mapping Framework using Minimalist Feature Remapping for Industry 4.0

Aparajita Mukherjee[1[0000-0001-6112-6801]], Dwaipayan De[2[0000-0003-3112-7365]], Sankha Subhra Ghosh[3*[0009-0006-1114-9603]], Srotaswini Chakrabarty[4[0009-0008-2571-8031]], Abhirup Chakraborty[5[0009-0003-8720-6764]], Sourav Kundu[6[0009-0004-9983-5565]]

[123456] Mechanical Engineering Department, Institute of Engineering & Management (IEM), School of University of Engineering and Management (UEM), Kolkata
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Abstract. The detection of weld defects has always relied on massive amounts of labeled data, which is scarce in most industrial environments. In this paper, we introduce a Minimalist Feature Remapping strategy for Pixel-level weld defect localization in shielded metal arc welding, utilizing an unusually small number of normal sample images from a college engineering workshop. We choose to freeze a VGG16 texture encoder and remap the distinctive features of normal welds into a high-dimensional normality manifold. Test image anomalies are picked out by Mahalanobis distance mapping. If a point lies outside the 3-sigma(3σ) boundary of the land manifold, we generate high-resolution heat maps without the need for any human-annotated defect labels. This unsupervised strategy obviates the need for defect annotations while still being extremely sensitive to abnormal weld textures. The strategy provides a two-fold output: a numerical anomaly score and a visually interpretable defect map, closing the gap between black-box research and practical industrial applications. Our results show that this zero-shot localization tool is both data efficient and fast to deploy, making minimalist deep learning a practical choice for Industry 4.0 quality control.

Keywords: Weld defect Detection, VGG-16 Texture Encoder, Mahalanobis Distance Mapping, unsupervised anomaly detection, Pixel-level world defect localization.