

Paper Submission Form - SAIP2025 Proceedings

Sections A, C, D, and E must be completed by all authors (including students) who submit papers. Section B is compulsory for students who submit manuscript(s).

Section A: Paper Submission Information

Paper/Abstract ID	482
Paper title	Automated photovoltaic module imaging for high throughput data capture and analysis
Corresponding Author Name & Surname:	Matthew Sivewright
Corresponding Author Email Address:	s223099996@mandela.ac.za

Section B: For Students & Supervisors

Supervisor Name & Surname:	Prof. Ernest Van Dyk ; Dr Frederik Vorster
Supervisor Email Address:	Ernest.vanDyk@mandela.ac.za ; Frederik.Vorster@mandela.ac.za

For this paper, the supervisor must agree/disagree with the following statements.

	Yes	No
1. I am aware that the above-mentioned paper is being submitted for possible publication in the Proceedings of the SAIP Conference. I am satisfied that the presented work is that of the listed authors. I hereby give consent to the submission	✓	
2. I have proof-read the manuscript	✓	
3. I am satisfied that the manuscript is written in appropriate English and is sufficiently free of grammatical and spelling errors	✓	
4. I am familiar with the required manuscript format ("House Style"), and I am satisfied that this manuscript meets the criteria. I am aware that manuscripts not conforming with House Style may be desk rejected	✓	
5. I am satisfied that the scientific content of this manuscript is of sufficient standard for it to be considered for publication in the Proceedings of the South African Institute of Physics Conference Proceedings	✓	

Student Name & Surname: Matthew Sivewright Signature:  Date: 31 / 07 / 2025

Supervisor Name & Surname: E.E van Dyk Signature:  Date: 31 / 07 / 2025

Section C: Suggested Reviewers

Obtaining the two referee reports necessary for DHET subsidy is an onerous task.

Please provide the names and contact details of three qualified South African and/or international referees. Referees should have a PhD and expertise in the relevant area of Physics. Do not recommend referees who have co-authored a work with any of the authors on the manuscript within the past five (5) years. Manuscripts without three recommended referees may be subject to desk rejection.

Suggested Reviewers in your Research Field (Both local & international)

	Reviewer Names & Surname	Reviewer's Email Address(es)
Suggested reviewer #1		
Suggested reviewer #2		
Suggested reviewer #3		

Section D: Declaration of Novelty and Use of AI

How is this submitted manuscript scientifically novel?

My manuscript presents a novel approach by developing a laboratory-based gantry system for automated high-resolution visual and UVF imaging of PV modules.

Unlike existing manual or drone-based inspection methods, this system integrates precise mechanical control with automated image capture and custom stitching techniques to enable scalable, high-throughput fault detection.

Please see the Author Guidelines for the AI use policy.

How was AI used in the generation of this manuscript?

AI was used for language refinement during the final writing of this manuscript. ChatGPT by OpenAI assisted in improving grammar, sentence structure, and overall clarity. AI was not used for data analysis, figure generation, and image manipulation

Section E: Plagiarism

	Yes
I am aware that plagiarism detection software may be used on my manuscript.	✓