

IGNITE 2022

A DAILY NEWSLETTER



Editor in chief

Dr. Srinivasan Alavandar
Principal, ACT

Editors

Ms Mary Surya Kala, ASP - S&H
Ms Vani Lavanya, AP - IT
Ms Abirami Sekar, AP - CSE

BE AN ACTIONeer, Aspire To BE the BEST

Agni College of Technology

Approved by AICTE/UGC, New Delhi, Accredited by NBA, Affiliated to Anna University, Chennai.

ISO 9001:2015 Certified Institution.Estd.2001.

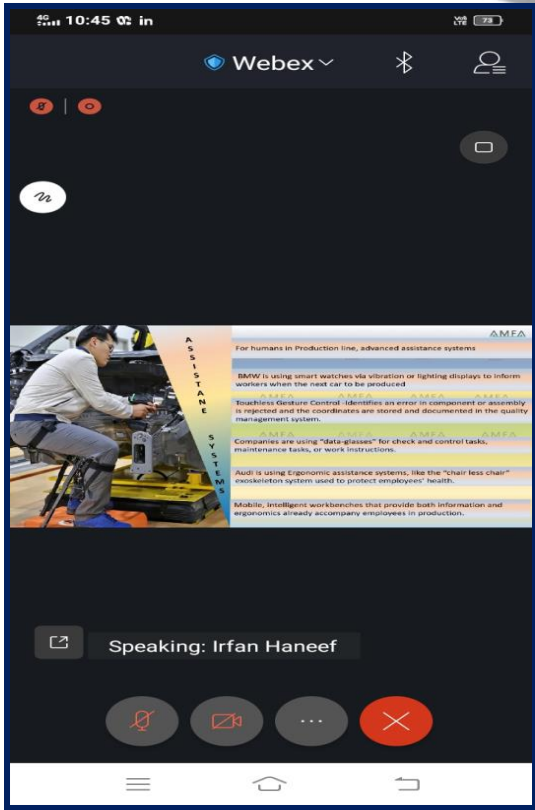


Website: www.act.edu.in

OMR, Thalambur, Chennai - 600 130. **Phone:** 044 6740 9444/45 **Mobile:** 8122124081,9445024081, **Email:** admission@act.edu.in



FACULTY ACHIEVEMENT



Mr. K. Mahesh Kumar, AP, Department of MAE has participated in an online lecture on “Technology Utilisation in Automotive Manufacturing Industries” organised by SAEISS, Tirunelveli Division on 28th February 2022.

PLACEMENT ACHIEVEMENT



M. Jaikumar, Final Year Student, Department of MAE has got placed in Capgemini as an Analyst on 26th February 2022 with a CTC of Rs.4 lakhs per annum.

BE AN ACTIONeer, Aspire To BE the BEST

Agni College of Technology

Approved by AICTE/UGC, New Delhi, Accredited by NBA, Affiliated to Anna University, Chennai.

ISO 9001:2015 Certified Institution.Estd.2001.



Website: www.act.edu.in

OMR, Thalambur, Chennai - 600 130. Phone: 044 6740 9444/45 Mobile: 8122124081,9445024081, Email: admission@act.edu.in



NATIONAL SCIENCE DAY 2K22



AGNI COLLEGE OF TECHNOLOGY
DEPARTMENT OF AEROSPACE ENGINEERING
PRESENTS

NATIONAL SCIENCE DAY EVENT 2K22
ON 28TH FEBRUARY

INSTRUCTIONS

1. Conducted in online platform.
2. Participate as Team of three individuals.
3. For more instructions check on registration form description.

QUIZ COMPETITION

INSTRUCTIONS

1. An imaginary theory (Not scientifically proven).
2. A Technology/Invention you think, would change the future.
3. An Invention/Discovery you wish that doesn't exist.

POSTER PRESENTATION

INSTRUCTIONS

1. Participants must attend the event on time.
2. There will be 2 Rounds.
3. Final Round - 30 mins & Final Round - 20 mins.
4. For more instructions check on registration form description.

CONNEXION

INSTRUCTIONS

1. Participation should be separate.
2. Drawing should be a pencil art, sketching or painting.
3. Only A3 size Paper or chart anything.

DRAWING COMPETITION

FOR MORE INSTRUCTION CHECK ON REGISTRATION FORM DESCRIPTION
REGISTRATION ENDS BY 26TH OF FEB
REGISTRATION LINK : <https://forms.gle/CcbJPMoGtaX7>

STUDENT COORDINATOR : SRIRAM 7904126647 & YRUSHI 7550199275 | FACULTY COORDINATOR : Mr. A. SHANKAR M.E & Mr. S. PRASANTH M.E
Dr. S.K. NARENDRANATHAN MOD. DEPARTMENT OF AEROSPACE ENGINEERING
Dr. SRINIVASA ALAVANDAR PRINCIPAL ACT



The Department of Aerospace Engineering organised quiz competition, poster presentation, drawing competition and connexion events on National Science Day Celebration to create interest on Space Exploration among the students. The winners were issued with the Certificate of Appreciation.

BE AN ACTIONeer, Aspire To BE the BEST

Agni College of Technology

Approved by AICTE/UGC, New Delhi, Accredited by NBA, Affiliated to Anna University, Chennai.

ISO 9001:2015 Certified Institution. Estd. 2001.



Website: www.act.edu.in

OMR, Thalambur, Chennai - 600 130. Phone: 044 6740 9444/45 Mobile: 8122124081, 9445024081, Email: admission@act.edu.in



FACULTY ACHIVEMENT



Contents lists available at ScienceDirect

Materials Today: Proceedings

journal homepage: www.elsevier.com/locate/matpr



Studies on mechanical and morphological of TIG welded aluminum alloy

M. Magesh^a, K. Arul^b, M. Subburaj^c, R. Rangaraja^{d,*}, B. Aravindh^e, S. Lakshmana Kumar^f, Ram Subbiah^g

^a Department of Aerospace Engineering, B.S. Abdur Rahman Crescent Institute of Science and Technology, Vandarur, Chennai, India
^b Department of Mechanical Engineering, Agni College of Technology, Thalambur, Chennai 600130, India
^c Department of Mechanical Engineering, Shadan College of Engineering and Technology, Hyderabad, Telangana 500086, India
^d Department of Mechanical Engineering, St. Joseph's College of Engineering, OMR, Chennai 600119, India
^e Department of Mechanical Engineering, SSM Institute of Engineering and Technology, Dindigul 624002, India
^f Department of Mechanical Engineering, Sona College of Technology, Salem, Tamilnadu, India
^g Department of Mechanical Engineering, Gokaraju Rangaraju Institute of Engineering and Technology, Hyderabad, Telangana 500090, India

ARTICLE INFO

Article history:
Available online xxxxx

Keywords:
AA5059
Optimization
Mechanical properties
Microstructural studies

ABSTRACT

An automated TIG welding system was employed to increase the welding strength and weld quality of pure Aluminum (Al) plate in terms of bead width and depth of penetration. The control parameters during the welding process are the most critical factors, such as welding speed and arc length. TIG welding is a procedure that involves maintaining an electric arc between a non-consumable tungsten electrode and the weldable component. Due to its strong corrosion resistance, AA5059- aluminum alloy is the most often used in the ship industry sector as a hull material.
Copyright © 2021 Elsevier Ltd. All rights reserved.
Selection and peer-review under responsibility of the scientific committee of the International Conference Virtual Conference on Technological Advancements in Mechanical Engineering.

1. Introduction

Metals and Non-Metals are joined through the mechanism of Plastic deformation. Here more friction and mechanical action are combined process is induced. Numerous FSW's advantages such as induced residual stress, smooth microstructure, less porosity, and less cracking. It can be automated easily also. FSW welding may be used on aluminium, magnesium, and copper alloys [1]. There has been increasing interest in using FSW technology to weld high melting point materials such as steel, aluminium alloys, nickel alloys, and titanium alloys in the last decade. Aluminium and aluminum-based alloys are widely utilized in the automotive and aerospace sectors because to their high specific strength, superior formability, and corrosion resistance [2]. Aluminium alloys haven't gained a lot of traction in the car business. The FSW technique of joining Al and its alloys is frequently used. Joining aluminium laminates has been a source of worry due to the difficulties of fusing aluminium fully using fusion welding methods. Threaded, square, cylindrical, tapered, and triangular pin profiles were employed in the welding trials. The authors came to the conclusion that pin profiles have a substantial impact on weld quality [3–5]. There are two sides to the movement of the metal

and the properties of the welds. In recent days, TIG welding process is an efficient technique for producing high-quality structural components. It is an arc welding practice in which the material accumulates as a result of the high temperature produced by an electrical source established between negative (a non-consumable tungsten electrode) and the positive (workpiece). The material's faying surface is melted and cemented during welding, and an inert gas purging out of the TIG flame protects the weld pool from outside contamination [6–8]. It is generally known that the weld bead shape has a significant impact on the quality of the weld connection. The load-bearing capability of symmetrical and fully penetrated weld connections is outstanding, which is a prerequisite for structural components. Structural components are usually made up of a variety of elements with varying thicknesses ranging from thin to mid-thickness [9]. It also lowers welding distortion and production costs while increasing productivity significantly. A-TIG welding offers a wide range of uses. Stainless steel, carbon steel, nickel base alloys, and titanium alloys are the most common materials utilized in A-TIG welding today [10]. It is primarily concerned with the addition of an active agent to AC welding in order to enhance the penetration of AA5059 alloy during AC welding.

* Corresponding author.
E-mail address: vithagaranga@gmail.com (R. Rangaraja).

<https://doi.org/10.1016/j.matpr.2022.02.001>
2214-7853/Copyright © 2021 Elsevier Ltd. All rights reserved.
Selection and peer-review under responsibility of the scientific committee of the International Conference Virtual Conference on Technological Advancements in Mechanical Engineering.

Please cite this article as: M. Magesh, K. Arul, M. Subburaj et al., Studies on mechanical and morphological of TIG welded aluminum alloy, Materials Today: Proceedings, <https://doi.org/10.1016/j.matpr.2022.02.001>

Dr. Arul. K, ASP, Department of Mechanical Engineering published a research article on Studies on Mechanical and Morphological of TIG Welded Aluminium Alloy in Elsevier publications.

BE AN ACTIONeer, Aspire To BE the BEST

Agni College of Technology

Approved by AICTE/UGC, New Delhi, Accredited by NBA, Affiliated to Anna University, Chennai.

ISO 9001:2015 Certified Institution.Estd.2001.



Website: www.act.edu.in

OMR, Thalambur, Chennai - 600 130. Phone: 044 6740 9444/45 Mobile: 8122124081,9445024081, Email: admission@act.edu.in



NATIONAL SCIENCE DAY



The Department of Science and Humanities celebrated National Science Day. Students exhibited their talents in various competitions such as quiz, poster presentation and PPT presentation on the title “Current Trends in Science”. Dr. Srinivasan Alavandar, Principal visited the exhibition conducted by the students.

BE AN ACTIONeer, Aspire To BE the BEST

Agni College of Technology

NBA ISO 20

Approved by AICTE/UGC, New Delhi, Accredited by NBA, Affiliated to Anna University, Chennai.

ISO 9001:2015 Certified Institution.Estd.2001.

Website:www.act.edu.in

OMR, Thalambur, Chennai - 600 130. Phone: 044 6740 9444/45 Mobile: 8122124081,9445024081, Email: admission@act.edu.in



FACULTY ACHIEVEMENT



G AISHWARYA, Assistant Professor, Department of Science and Humanities (MATHEMATICS) has participated in a one Week FDP *"Effective Teaching Learning Paradigms through Pedagogical Innovations"* organized by the Department of Mathematics, Sathyabama Institute of Science and Technology, Chennai, from 7th February to 12th February 2022.

BE AN ACTIONeer, Aspire To BE the BEST

Agni College of Technology

Approved by AICTE/UGC, New Delhi, Accredited by NBA, Affiliated to Anna University, Chennai.

ISO 9001:2015 Certified Institution. Estd. 2001.



Website: www.act.edu.in

OMR, Thalambur, Chennai - 600 130. Phone: 044 6740 9444/45 Mobile: 8122124081, 9445024081, Email: admission@act.edu.in



OFFICE OF THE EXAMINATION CELL

OFFICE OF THE CONTROLLER OF EXAMINATIONS
ANNA UNIVERSITY
 CHENNAI - 600 025

Email: coe@annauniv.edu
 044-22357252, 044-22357254, 044-22357265
 044-22350293

CONTROLLER OF EXAMINATIONS (i/c)
 Letter No. 2364/CoE/C/10/2022/2 23-02-2022

To
 The Deans of Regional Campuses /
 The Deans of Constituent Colleges /
 The Principals of the Non-Autonomous Affiliated Colleges

Sir/Madam,

Sub: Anna University - Office of COE - November/December 2021 - Pending Practical Examinations and Viva-Voce examinations for Studio based Courses - Reg.

Ref:
 1. Registrar's Letter No.4765/AU/CAC/A-ESE/2021 dated 24/11/2021
 2. G.O.(Ms) 25, Revenue and Disaster Management [D.M.IV] Department dated 07-01-2022.
 3. As directed by the Higher Education Department of Government of Tamil Nadu through Letter from the Principal Secretary, Higher Education, No.14595/A2/2021-2, dated 22.01.2022.

It is informed that the Practical Examinations and Viva-Voce examinations for Studio based Courses of the November-December 2021 Examinations were previously scheduled between 03-01-2022 and 12-01-2022 following the instructions of the Registrar of the University, vide Ref.1. As per the schedule, the examinations were successfully conducted from 03-01-2022 to 05-01-2022.

Due to increasing trend of COVID-19, the Government of Tamil Nadu issued a G.O., vide Ref.2, stating that "Holiday is declared upto 20.01.2022 to all colleges and polytechnic institutions except both Government, Private, Medical and allied medical, institutions for enabling the students to prepare for their examinations". Accordingly, the practical examinations scheduled from 06-01-2022 were cancelled.

Further, the theory examinations of the under-graduate programmes and five year integrated programmes were scheduled in online mode as directed by the Government, vide Ref.3, from 01-02-2022 onwards and the same comes to end on 06-03-2022 for Regulations 2013, 2015 and 2017 and 11-03-2022 for other Regulations. Therefore, it is proposed to conduct the pending practical examinations and Viva-Voce examinations for Studio based Courses and the same are scheduled in physical mode as given below

Sl. No.	Regulations	SLOT - 1		SLOT - 2	
		From Date	To date	From Date	To date
1	UG 2013	07-03-2022	09-03-2022	10-03-2022	15-03-2022
2	UG 2017	07-03-2022	09-03-2022	10-03-2022	15-03-2022
3	MBA 2015	07-03-2022	09-03-2022	10-03-2022	15-03-2022
4	Other Regulations (Special Examinations)	12-03-2022	15-03-2022	-----	-----

Your support and cooperation in this regard is solicited.

Copy to: The Zonal Coordinators / Zonal Officers of all the Zones

23/2/22

23/2/22

CONTROLLER OF EXAMINATIONS (i/c)

Chennai 600 025

All the affiliated colleges have received a notification from COE, Anna University regarding the conduct of the Practical Examination for II, III and IV Year students.

BE AN ACTIONeer, Aspire To BE the BEST

Agni College of Technology

Approved by AICTE/UGC, New Delhi, Accredited by NBA, Affiliated to Anna University, Chennai.

ISO 9001:2015 Certified Institution.Estd.2001.

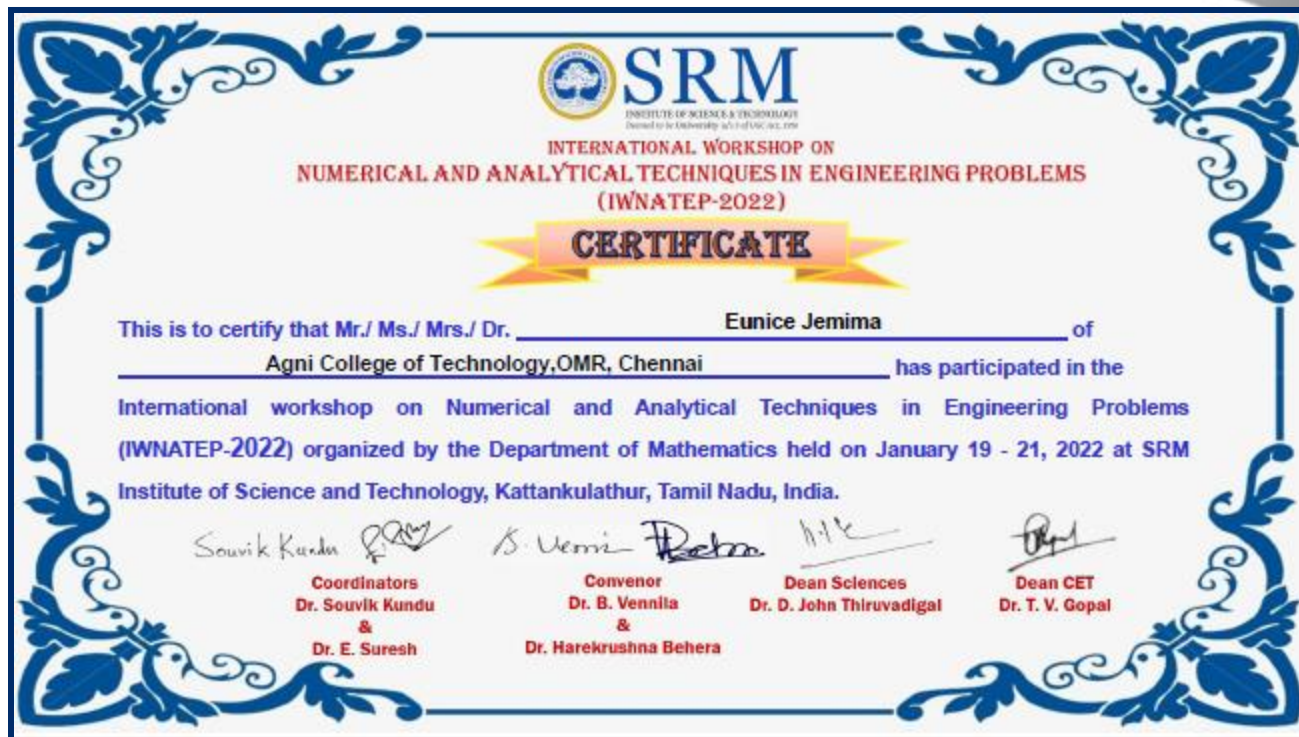


Website:www.act.edu.in

OMR, Thalambur, Chennai - 600 130. Phone: 044 6740 9444/45 Mobile: 8122124081,9445024081, Email: admission@act.edu.in



FACULTY ACHIEVEMENT



Ms. Eunice Jemima, Assistant Professor, Department of Science and Humanities (Mathematics) has successfully participated in the International Workshop on **Numerical and Analytical Techniques in Engineering Problems** (IWNATEP-2022) organized by the Department of Mathematics in SRM Institute of Science and Technology, Kattankulathur, on 19-21 January 2022.

BE AN ACTIONeer, Aspire To BE the BEST

Agni College of Technology

Approved by AICTE/UGC, New Delhi, Accredited by NBA, Affiliated to Anna University, Chennai.

ISO 9001:2015 Certified Institution. Estd. 2001.



Website: www.act.edu.in

OMR, Thalambur, Chennai - 600 130. Phone: 044 6740 9444/45 Mobile: 8122124081, 9445024081, Email: admission@act.edu.in



FACULTY ACHIEVEMENT



Dr. S. Bharanidharan, Senior Assistant Professor, Department of Science and Humanities (Physics) has been awarded for his excellence in reviewing the Journal of Advances in Medicine and Medical Research.

BE AN ACTIONeer, Aspire To BE the BEST

Agni College of Technology

Approved by AICTE/UGC, New Delhi, Accredited by NBA, Affiliated to Anna University, Chennai.

ISO 9001:2015 Certified Institution.Estd.2001.



Website:www.act.edu.in

OMR, Thalambur, Chennai - 600 130. Phone: 044 6740 9444/45 Mobile: 8122124081,9445024081, Email: admission@act.edu.in

