

IGNITE 2022



A DAILY NEWSLETTER

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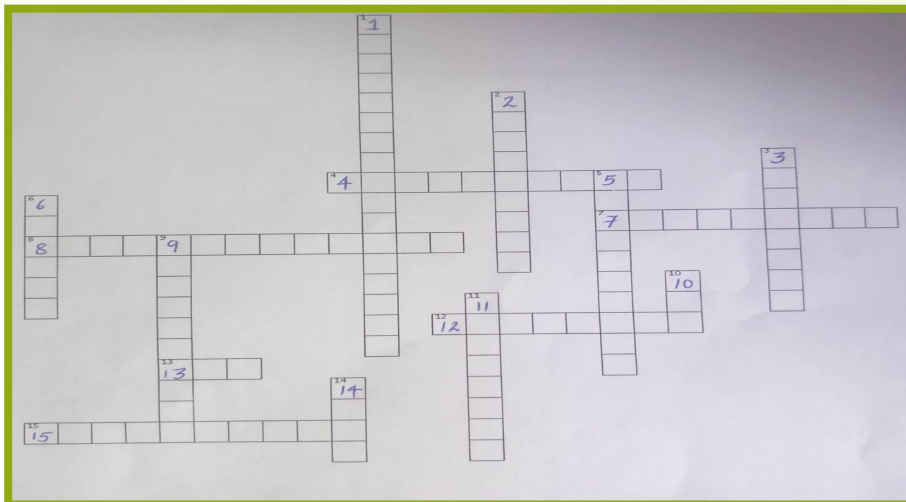
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ELECTRONIC DEVICES -CROSS WORD PUZZLE

Crossword Puzzle is open to all departments and all year students. Send your answers to Mr. Ratheesh, AP, ECE, Mobile: 9994352385, along with your name, department and register number.



ACROSS

4. I will work as amplifier if I am biased accordingly
7. I store and deliver energy, I am denoted as "C"
8. I am the basic building block of all Devices, My conductivity value is between conductor and an insulator.
12. I store energy in the form of electromagnetic field
13. I convert analog signals to Digital, Generally My abbreviation is?
15. I have one PN junction, I will work as voltage stabilizer

DOWN

1. I will convert AC to DC but my efficiency is only 40.5%
2. I am electronic device I can increase the power of a signal
3. I opposes the flow of electrons through me
5. I generate specific Frequency of a signal.
6. I am also called IGFET, I am fabricated by the controlled oxidation of a semiconductor
9. I basically compares my inputs
10. I am used where the control of high power, possibly coupled with high voltage, is demanded. I have 3 PN junction.
11. I convert DC to AC
14. I am simple unipolar current-controlled field effect device, I will work as switches or resistors

Use the clues to fill in the words above.

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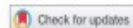


FACULTY PUBLICATION



DR. R. PANDIYARAJAN
HOD/MHT

ADVANCES IN MATERIALS AND PROCESSING TECHNOLOGIES
<https://doi.org/10.1080/2374068X.2022.2079226>



Optimising aluminium 2024/7075 friction stir welded joints

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^cDepartment of Mechatronics, Agni College of Technology - Thalambur, Chennai, India

ABSTRACT

The present novel work is the investigation of dissimilar AA2024/AA7075 aluminium alloy friction stir spot welded joint. The input welding process parameters were analysed to determine the most influencing process parameter on mechanical and morphological properties of the weld. The welding process and input parameters were optimised by Box-Behnken design and response surface methodology. Among the enhanced mechanical characteristics, tensile shear force was observed to be enhanced to maximum being influenced by the rotational speed of the friction stir tool. Optimised performance characteristics were obtained by using desirability approach, and the resulting optimal input parameters were: Tool plunge depth = 3.3 mm, rotational speed of tool = 2000 rpm and Tool dwell time = 40 s. The optimal tensile shear force and hardness obtained were 4.18 kN and 134 HV, respectively, which were validated by comparing the experimental and predicted output response. The elemental composition and morphology of materials were characterised by X-ray diffraction – scanning electron microscope, while the mechanical properties were analysed by tensile and Vickers hardness testing.

ARTICLE HISTORY

Accepted 13 May 2022

KEYWORDS

AA2024/AA7075; dissimilar aluminium joint; response surface methodology; friction stir spot weld; parameter optimisation

Dr. R. Pandiyarajan, Head, Department of Mechatronics Engineering has published a paper entitled on **Optimising Aluminium 2024/7075 Friction Stir Welded Joints** in the journal **Advances in Materials and Processing Technologies**.

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STUDENT PRE-PLACEMENT SELECTION



Short Listing or SSB Interview

1 message

<wm.joinindianarmy@gov.in>

To: rsuryanarayanaayrus@gmail.com

Tue, May 24, 2022 at 21:57

Dear SURYANARAYANAN R ,

1. You have been shortlisted to attend SSB interview at ALLAHABAD for SSC(Tech)-59
2. Please login to your profile on www.joinindianarmy.nic.in using your registered email ID and password to select your preferred date within seven days failing which you will be allotted dates by the system automatically.

From ,
Administrator

R. Suryanarayanan, IV year student, Department of Mechatronics has been shortlisted to attend SSB Interview at Allahabad for SSC(Tech)-59 on 24th May 2022. On behalf of AGNI Family, we congratulate him for his future endeavours.

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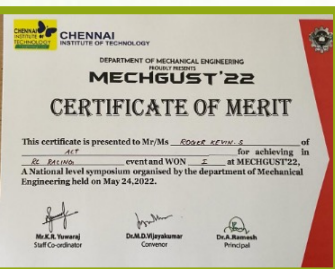
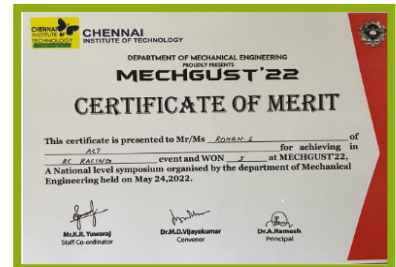


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STUDENTS ACHIEVEMENT



D. Jaswanth , V. Bhuvanesh, S. Rohan , S. Roger Kevin, A. Ranjith kumar, K. Rajesh, M. Jabez, III year students, Department of Mechatronics have won **FIRST PRIZE** in RC Racing, MECHGUST-22 - A National Level Symposium organised by Chennai Institute of Technology, Chennai on 24th May 2022.

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STUDENT PARTICIPATION



Gopinath G, III year student, Department of Mechanical Engineering has actively participated in the one day National Webinar on **CFD and its Applications** on 4th May 2022 organized by Saveetha School of Engineering, SIMATS, Chennai..

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DEFENCE & TECHNOLOGY EXPO VISIT



Department of Aerospace Engineering, II & III students have attended the Defence and Technology Expo at Chennai Trade Centre, Nandamnakkam, Chennai. The students visited various defence equipment's stalls organised by Defence Companies on 26th May 2022.

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AGNI SPORTS CLUB



Today is the fag end of all the team events. The events for the men and women, teaching and non-teaching staff have been given a final touch. The team events for boys and girls have been completed. All have participated actively and energetically.

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STUDENT REPOSITORY



Gokul R, III year student, Department of Mechanical Engineering has portrayed a pencil sketch of Lord Sri Krishna.

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STUDENT REPOSITORY



Harini P, III year student, Department of Electronics and Communication Engineering has portrayed a intricate pencil sketch highlighting her innate talent.

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