

**A DAILY NEWSLETTER**

IGNITE - 2022

**Editor in chief****Editors**

Dr. Srinivasan Alavandar
Principal, ACT

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

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TECHNOLOGY TRANSFER PROGRAMME



Dr. Srinivasan Alavandar, Principal, Agni College of Technology has conducted a meeting with the committee members of Technology Transfer Programme, an inter-school project contest organised by AGNI College of Technology every year. The programme imbibes the healthy competitive spirit in the young minds and inculcates the importance of technology in the global scenario. The meeting was about to conduct the programme effectively.

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STUDENT ACHIEVEMENT

We thank you for making the Symposium on E-mobility, GARC hosted as part of Azaadi Ka Amrut Mahotsav successful. Please find below the results.

S.No	Title	Author's	Name of the Educational Institute	Remarks
1	Demand and Future Prospects of Hydrogen Fuel cell vehicle	Mr.Manav Rohatgi	Vellore Institute of Technology, Vellore	3 rd Place
2	Solar Photovoltaic based E-mobility: Modelling EV integration with the Electricity Distribution Network	Mr.Bhuvanjeet Singh Gandhi, Ms.Ishika	Vellore Institute of Technology, Vellore.	1 st Place
3	Study on Vehicle Speed Control E-Mobility by using Mapping Concept for Highway Roads	Mr.Murali Sai Kumar , Ms.Chandra Sailaja Reddy	Vel Tech Rangarajan Dr.Sagunthala R&D Institute of Science and Technology, Chennai.	3 rd Place
4	DEMAND AND FUTURE PROSPECTS OF HYDROGEN FUEL CELL VEHICLES	Ms.Sandhiya, Ms. Lakshmi Prabha	Agni College of Technology	2 nd Place

Sandhiya and Lakshmi Prabha of II year students, Department of Aerospace Engineering has secured **2nd place** in the Symposium on **E-Mobility** mentored by Mr. Shankar, AP, Department of Aerospace Engineering.

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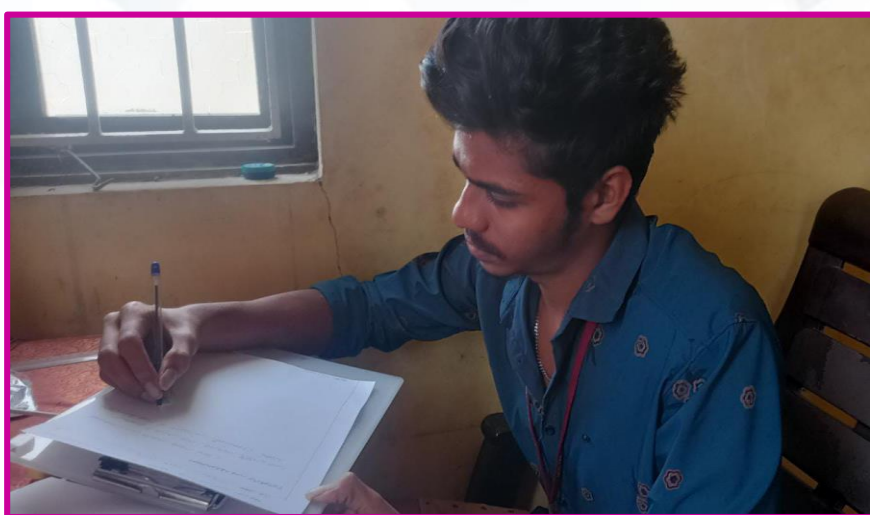
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OFFICE OF THE EXAMINATION CELL

Anna university theory examinations
Nov/Dec 2021 has started for II ,III and IV
year students through online mode.

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FACULTY ACHIEVEMENT

Advanced Journal of Chemistry, Section B, 2021, 3(4), 333-347



Advanced Journal of Chemistry-Section B
Natural Products and Medical Chemistry

Journal homepage: <http://www.ajchem-b.com/>



Original Research Article

Crystal structure, Hirshfeld surface, Energy framework and Molecular docking analysis of 4-(methoxyphenyl)acetic acid

Ruchika Sharma¹, Sumati Anthal¹, Nitin G. Ghatpande^{2,3}, Mahidansha M. Shaikh^{2,3}, Jagannath S. Jadhav⁴, Saminathan Murugavel⁵, Sonachalam Sundramoorthy⁶ and Rajni Kant^{1*}

¹Chemical Crystallography Laboratory, Department of Physics, University of Jammu, Jammu Tawi-180006, India.
²Department of pharmaceutical Chemistry, School of Health Science, University of KwaZulu-Natal, Durban-4041, South Africa.
³Unique Med Chem Laboratories, L-64, Chincholli MIDC, Solapur-413255, M. S., India.
⁴Department of Chemistry, Shivaji University, Kolhapur-416004, M.S., India.
⁵Department of Physics, Thanthai Periyar Government Institute of Technology, Vellore- 632002, Tamil Nadu, India.
⁶Department of Physics, Agni College of Technology OMR, Thalambur, Chennai-600130, Tamil Nadu, India.

ARTICLE INFO	ABSTRACT
Article history Submitted: 2021-10-01 Revised: 2021-11-24	The crystal structure of (4-methoxyphenyl) acetic acid (C₉H₁₀O₃) exists in the monoclinic space group P2₁/c having unit cell parameters: a = 16.268 (15), b = 5.858 (5), c = 9.157 (8) Å, β = 95.24

Dr. S. Sundramoorthy, Assistant Professor, Department of Science and Humanities (Physics) has published a paper entitled “**Crystal Structure, Hirshfeld Surface, Energy Framework and Molecular Docking Analysis of 4-(methoxyphenyl) Acetic Acid**” in Advanced Journal of Chemistry - Section B, 2021, 3(4), 333-347.

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FACULTY ACHIEVEMENT: PATENT FILED

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29/01/2022, 18:55 Intellectual Property India


 Office of the Controller General of Patents, Designs & Trade Marks
 Department of Industrial Policy & Promotion,
 Ministry of Commerce & Industry,
 Government of India
 (<http://ipindia.nic.in/index.htm>)


 INTELLECTUAL PROPERTY INDIA
 विद्युत् संपत्ति अधिकार संस्थान
 (http://ipindia.nic.in/index.htm)

Application Details	
APPLICATION NUMBER	202241002512
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	17/01/2022
APPLICANT NAME	1 . Dr. ISHWARYA M.V 2 . Dr. Deepth R. 3 . Ms G MANIMALA 4 . Dr P KAVITHA 5 . Dr. P. Neelaveni 6 . Mr Vijayanarayanan 7 . Dr M. SureshAnand 8 . Ms S. HEMAVATHI 9 . Dr. J Raja 10 . Mr. K E Narayana
TITLE OF INVENTION	CARDIOVASCULAR DISEASE PREDICTION SYSTEM USING MACHINE LEARNING
FIELD OF INVENTION	COMPUTER SCIENCE

Dr. Ishwarya M.V, AP Department of CSE has filed the Patent with **Agni Affiliation**.

Patent title : **Cardiovascular Disease Prediction System Using Machine Learning.**

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CRITERIA 4: INFORMATION TRANSFER



Dr. S. Meera, Head, Department of CSE & Dr. Shiva, Head, Department of Civil had a meeting regarding Criteria 4, They shared and discussed some of the credentials in Criteria 4 such as laboratory, library files.

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OFFICE OF THE EXAMINATION CELL



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Office of Examcell

Circular

Midterm Test for First year

- ❖ The **Midterm Test** for the students of UG I -year B.E / B. Tech will be commencing from **07-02-2022 to 11-02-2022 (Time 09:00 AM to 12:00 Noon)**.
- ❖ The question paper format is attached in the mail. Kindly adhere with the format while preparing the question paper. The Department ExamCell Coordinator is requested to ensure the format of the question paper before collecting from the corresponding course teacher.
- ❖ The Examcell coordinator of First year have to collect the question paper through soft copy PDF Format and it should be uploaded in the drive shared by exam cell without fail on or before **5-2-2022**.
- ❖ The portion for IAT-I is Unit -1, 5 UNIT and Mark Split UP for Midterm Test

Type -1

PART - A (10 x 2 = 20 Marks)

PART - B (5x 13= 65Marks)

PART -C (1x 15= 15Marks)

Total =100 Marks (As per anna university)

Type -2

PART - A (10 x 2 = 20 Marks)

PART - B (5x 16= 80 Marks)

Total =100 Marks (As per anna university)

Office of Examcell

Principal

Agni College of Technology

Thalambur, Chennai 600 130

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Midterm Test Time Table First Year Odd Semester (AY 2021-2022) Timing :09:00 AM to 12:00 Noon

Dept Code- Department

	Date of Exam	Day of Exam	103-CVL	104-CSE	105-EEE	106-ECE /110 AES	114-MEC
I Year	7-Feb-22	Monday	HS151-Professional English -I	HS151-Professional English -I	HS151-Professional English -I	HS151-Professional English -I	HS151-Professional English -I
	8-Feb-22	Tuesday	MA3151-Matrices and Calculus	MA3151-Matrices and Calculus	MA3151-Matrices and Calculus	MA3151-Matrices and Calculus	MA3151-Matrices and Calculus
	9-Feb-22	Wednesday	PH3151-Engineering Physics	PH3151-Engineering Physics	PH3151-Engineering Physics	PH3151-Engineering Physics	PH3151-Engineering Physics
	10-Feb-22	Thursday	CY3151-Engineering Chemistry	CY3151-Engineering Chemistry	CY3151-Engineering Chemistry	CY3151-Engineering Chemistry	CY3151-Engineering Chemistry
	11-Feb-22	Friday	GE3151-Problem Solving and Python Programming	GE3151-Problem Solving and Python Programming	GE3151-Problem Solving and Python Programming	GE3151-Problem Solving and Python Programming	GE3151-Problem Solving and Python Programming
I Year	7-Feb-22	Monday	115-MHT	116-MAE	121-BME	203-CME/243-AIDS	205-IT
	8-Feb-22	Tuesday	MA3151-Matrices and Calculus	MA3151-Matrices and Calculus	MA3151-Matrices and Calculus	MA3151-Matrices and Calculus	MA3151-Matrices and Calculus
	9-Feb-22	Wednesday	PH3151-Engineering Physics	PH3151-Engineering Physics	PH3151-Engineering Physics	PH3151-Engineering Physics	PH3151-Engineering Physics
	10-Feb-22	Thursday	CY3151-Engineering Chemistry	CY3151-Engineering Chemistry	CY3151-Engineering Chemistry	CY3151-Engineering Chemistry	CY3151-Engineering Chemistry
	11-Feb-22	Friday	GE3151-Problem Solving and Python Programming	GE3151-Problem Solving and Python Programming	GE3151-Problem Solving and Python Programming	GE3151-Problem Solving and Python Programming	GE3151-Problem Solving and Python Programming

Office of Examcell

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Mid-term Examination for First year (2022-2025) batch has been scheduled from 7th February -11th February 2022 through online mode.

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REASERCH ARTICLE PUBLICATION

ARTICLE IN PRESS

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

Investigation of machining attributes on machining of alloys under nano fluid MQL environment: A review

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^eDepartment of Mechanical Engineering, Vellore Institute of Technology, Vellore, India
^fDepartment of Mechanical Engineering, K. Ramakrishnan College of Engineering, Tiruchy 621112, India

ARTICLE INFO

Article history:
Available online xxxxx

Keywords:
MQL
Nano fluid
Dry machining
Flooded coolant
Machining attributes

ABSTRACT

Proper cooling technique and coolant is inevitable in the machining of alloys to dissipate the heat in the machining zone and thereby the machining performances can be improved. The flood coolant in industries being used and it has lot of draw backs like improper supply of coolant to machining zone exactly and causes to affect the environment and health. Therefore, Minimum Quantity Lubrication (MQL) technique was being used successfully in the industries in machining the alloys, but MQL technique alone does not dissipate the heat in the machining zone effectively. Therefore, nano additives-MQL technique has proved as effective one to dissipate the heat in the cutting zone and as result, the machining performances can be improved. However, right choice of base oil, nano additives, flow rate and concentration of nano additives with base fluid are found to be important factors, which affect the effectiveness of the cooling performances. In this review, the effect of various nano additives and base oils on the machining attributes is studied. The effect of nano fluids-MQL on surface integrity, microhardness and chip morphology are found to be lack. Most of the research in machining under nano fluids-MQL environment found to be in turning operations. Finally, the machining of alloys under nano additive-MQL system found to be sustainable machining.

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Selection and peer-review under responsibility of the scientific committee of the International Conference Virtual Conference on Technological Advancements in Mechanical Engineering.

1. Introduction

The machinability of alloys mainly depend on the machining parameters and their levels, however the machining environment like dry, flooded coolant and Nano fluid-MQL system plays major role on the machinability of alloys in terms of machining attributes such as roughness, wear rate, generation of temperature at the machining zone, integrity etc.,. As the super alloys are used in high temperature environment, these alloys should be machined at optimum parameters and suitable machining environment to improve the life as well retain its mechanical properties at high temperature applications.

For example, the heat would not get dissipated in machining super alloys like Inconel 718, Nimonic C263 etc., owing to its low thermal conductivity and it affects the machining performances. Therefore, flooded coolant was used in machining of these alloys, however, this technique found to be ineffective. The nano additive-minimum quantity lubrication (MQL) is being used successfully, however, still research is being done on investigating the effects of various nano additives, base oil etc., on the machining performances.

2. Coolant effect of nano additives-MQL environment

In machining any alloys, heat would be generated in the cutting zone and it is thermo-mechanical process. The heat is generated due to friction among the insert tip and workpiece surface. The generation of this temperature should be dissipated or to be trans-

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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.

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Dr. Arul Kulandaivel, ASP, Department of Mechanical Engineering published a research article on Investigation of Machining Attributes on Machining of Alloys Under Nano Fluid MQL Environment: A Review in Elsevier publications. In this article, the advantages of Nano fluids and MQL technique is presented. Finally, the authors suggested that suitable input parameters, machining environments and spraying techniques are suitable for machining of different alloys.

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PLACEMENT DIVISION



Placement Officer Ms. Vidhya has visited INOVANCE TECHNOLOGY Pvt., Ltd., on 1st February 2022 and had an interaction with the HR. The visit was regarding the Industrial Institute Connect.

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