

**Application for Permission to attend
conference/Seminars/Workshops and Paper Presentation**

1. Name of the Staff : SRI NIVASA C.S.
2. Designation & Department : Asst. Professor, Mechanical Engg.
3. Name of the Conference/Seminar Symposium/Workshop : ISAMPE NATIONAL CONFERENCE
ON COMPOSITES: INCCOM-18
SPRINGER
4. Type of conference is International/
National/State Level : NATIONAL
5. Place of Conference/workshop : CSIR-NAL, Bangalore-17
6. Date of Conference/workshop : 8-02-24 to 9-02-24
7. Title of the paper submitted/accepted : Synthesis, Mechanical-beam Analysis
of Al 7075 Alloy with B₄C & SiC particles
Hybrid Composites
8. Mention the items enclosed
 - a. Copy of the brochure : (Yes/No)
 - b. Copy of invitation letter : (Yes/No)
 - c. Copy of the abstract of the paper : (Yes/No)
 - d. Acceptance received by Committee with recommendation : Attached acceptance
email copy.
9. Rough estimate of expenditure
 - a. Registration fee : INR. 2000 RS.
 - b. Train/Air fare Bus : $964 + 964 = 1928$ RS
Total Amount = 3,928 RS
10. Details of previous conference/workshop
Attended (Date/Place/Type) : -NIL-

Date: 25/01/24

Recommendation of the HOD

Forwarded to the
Head of,

Guill
25/1/24

C.S. S
(Signature)
Name: SRINIVASA C.S.
Designation & Dept

Asst. Professor
Dept. of Mechanical Engg.

[Signature]
Signature of the Principal.

Patrons

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Mr. S Somanath, Chairman, ISRO
Dr. D K Sunil, Director (Engg and R&D) HAL
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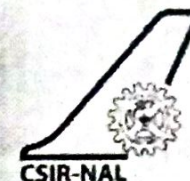
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Bangalore is among the world's fastest-growing Cosmopolitan city today and is home to many high-tech industries in India. Rightly acknowledged as the Intellectual Capital of India, it is home to some of India's premier scientific establishments like the Indian Institute of Science, apart from being the country's aerospace engineering hub.

Bangalore is popularly known as the Garden City of India, due to its salubrious climate, picturesque parks, gardens and other scenic spots. Bangalore being the center of exports, its shopping arcades offer a wide range of selections for silk, sandalwood and inlay work in brass and rosewood. In addition, Bangalore showcases a fascinating confluence of cultures both of Karnataka and the country as a whole.

Bangalore is the headquarters of several public sector units and government R&D establishments like Hindustan Aeronautics Limited (HAL), Bharat Heavy Electricals Limited (BHEL), Bharat Electronics Limited (BEL), National Aerospace Laboratories (CSIR-NAL), Defence Research Laboratories (DRDO), Bharat Earth Movers Limited (BEML) and Hindustan Machine Tools (HMT). The Indian Space Research Organization (ISRO) established under the Department of Space is headquartered in the city. Bangalore is also called the "Silicon Valley of India" because of the large number of Information Technology companies located in the city.



ISAMPE NATIONAL CONFERENCE ON COMPOSITES: INCCOM-18

Advances in Materials & Manufacturing
Processes for Composite Applications
(AMMPCOM)

February 8 -9, 2024

CSIR-National Aerospace Laboratories
Bangalore-17

Call for Papers

Organised by

Indian Society for Advancement of
Materials and Process Engineering
Bangalore Chapter

In Association with
CSIR-National Aerospace Laboratories
Bangalore

Venue:
S R Valluri Auditorium, CSIR-NAL,
Bangalore

www.isampe.org

ISAMPE

Indian Society for Advancement of Materials and Process Engineering (ISAMPE), founded in September 1985, is a professional body dedicated to the promotion of Materials and Process Technologies in the country, with special emphasis on composites. It aims at establishing a scientific and organized approach to advancements and applications in the field through conferences, workshops, education, research, compilation and dissemination of information as well as training and interaction among the professionals from a wide spectrum of disciplines involved. Its major goal is to bring together R&D institutions and industries together. ISAMPE, headquartered in Bangalore has local chapters in Bangalore, Pune, Trivandrum, Coimbatore, Hyderabad and Kanpur.

CSIR-NAL

The CSIR-National Aerospace Laboratories (NAL) was established in 1959 under the Council of Scientific and Industrial Research (CSIR). NAL has successfully contributed to the growth of aerospace R&D activities in the country and in particular to the projects of national importance in the defense and space sectors. This has been done through building up of expertise and establishing various facilities. NAL, the largest laboratory of the CSIR, has 1350 employees, including 330 scientists, of whom at least 100 hold doctoral degrees. The laboratories objective is a well-balanced assortment of diverse tasks connected to technical advancement, programme support for government initiatives, and the design and development of civil aircraft. CSIR-NAL is the only civilian aerospace R&D facility that is accredited by the ISO 9001-2008 QMS International Standards. As a result of its successful efforts and significant contributions, CSIR-NAL has been recognized internationally as a major center for aerospace research and development activities.

INCCOM-18

From the Year 2002, ISAMPE has been organizing the annual conference (ISAMPE National Conference on Composites – INCCOM) to explore the ongoing research in processing and characterization of composite materials and their potential application for the future. ISAMPE Bangalore chapter, in association with CSIR-NAL, is hosting the INCCOM conference (INCCOM-18) at CSIR-NAL, Bangalore. The main theme of this conference is "Advances in Materials & Manufacturing Processes for Composites (AMMPCOM)".

The conference will provide a forum for R&D organizations, Academia and Industrial Agencies to exchange information on the latest advances in composite materials and to explore networking possibilities to achieve technological advancement on a global scale. This Conference will also showcase the Aerospace Technologies of CSIR-NAL.

This Conference will comprise of keynote addresses, invited lectures, and contributed papers as well as an exhibition to showcase technologies/products from industries. Also, an industry-ISAMPE interactive session is contemplated.

Industries interested in sponsoring the event may contact the convener. Please visit www.isampe.org/inccom18 for more details

Areas of Interest

Significant research findings, R&D trends, and future prospects of science and technologies are solicited in different areas of composites including,

- Synthesis and Processing of Composites
- Composites Tooling
- Physical, Chemical & Mechanical Characterisation
- Structural Testing and Certification of Composites
- Non-Destructive Testing & Analysis,
- Fatigue & Fracture of Composites
- Composite Manufacturing Techniques
- FEM in Design of Composites
- Repair and Recycling Technologies
- Composite Structural Health Monitoring
- Nanocomposites
- Damage Tolerance in Composites
- Stealth Materials in Aerospace Applications

For more details, please visit the website www.isampe.org/inccom18.

Call for Papers

Authors are invited to electronically submit abstracts of their original work written in English in the areas of interest to the conference. The

abstract has to be of approximately 300 words. The Abstract has to be submitted as an e-mail attachment to inccom18@gmail.com.

All the submitted abstracts will be peer-reviewed and authors of selected abstracts will be requested to submit the full-length paper. **The papers selected would be published in the Springer Proceedings.** Besides, a souvenir containing abstracts would also be brought out.

Important Dates

Receipt of Abstracts:	November 30, 2023
Acceptance of Abstracts:	December 15, 2023
Final Paper Submission:	January 15, 2024
Advance Registration Closing:	February 01, 2024
Conference Dates:	February 8-9, 2024

Registration

Registration Fee

ISAMPE members	Rs. 5000
Individual / Industry	Rs. 6000
Academic Institutions	Rs. 4000
Students	Rs. 2000

Registration fee includes a copy of the conference proceedings, participation in technical sessions, refreshments, lunch during sessions and a conference banquet.

Mode of payment

Payments should be made through Online Transfer:

Account name - ISAMPE
Account Number – 41270405763, Bank - State Bank of India, NAL Branch - 560017, Bangalore, India
IFSC code – SBIN0004815

Website

For detailed information, online pre-registration and updates, please visit the conference website: www.isampe.org/inccom18

For details contact

Convener, INCCOM-18
CSIR-National Aerospace Laboratories
PB 1779, Bangalore 560 017, India
Tel: 91-080-25086325/6322, 9880301368
E-mail: inccom18@gmail.com

Synthesis, Mechanical-Wear Analysis of Al7075 Alloy with B₄C and Graphite Particles Hybrid Composites

Srinivasa C S^{1*}, Shanawaz Patil², Madeva Nagara³, V Anardi⁴, Subbaraya Mohan Kumar⁵

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³Manager, Aircraft Research and Design Centre, HAL, Bangalore-560037, Karnataka, India

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Abstract

In the present work, hybrid composites made of Al7075 alloy with B₄C and graphite were produced using a liquid metallurgical process. Al7075 alloy was utilized to create hybrid composites that had 3 weight percent to 6 weight percent of B₄C particles and a constant 2 weight percent of graphite particles. Microstructural analysis using SEM, EDS, and XRD was done on the produced composites. The density, hardness, ultimate, yield strength, and elongation as a percentage were calculated using ASTM standards. The wear behavior of Al7075-B₄C and graphite composites was examined using a wear testing device under a variety of loads and rotation speeds. Graphite and boron carbide particles were equally dispersed throughout the Al7075 alloy, according to SEM photographs. EDS and XRD patterns showed that the Al7075 alloy contained hybrid particles. Adding dual particles to the matrix reduced the density of Al alloy composites. The additions of dual particles improved the hardness, ultimate and yield strength, and wear resistance of the Al7075 alloy. EDS and XRD patterns showed that the Al7075 alloy contained hybrid particles. Adding dual particles to the matrix reduced the density of Al alloy composites. The distinctive fracture behaviors of the Al7075 alloy and its composites were further illustrated using tensile force micrographs. SEM micrographs were utilized to look at the various morphologies of worn surfaces' wear mechanisms.

Keywords: Al7075 Alloy, B₄C Particles, Graphite Particles, Hybrid Composites, Microstructure. Mechanical Behavior, Wear.

Srinivasa Cs <srinivasa.mech@gmail.com>

Fwd: Acceptance of your abstract for Oral Presentation - INCCOM-18 Conference

3 messages

MOHAN KUMAR M <inccom18@gmail.com>
To: Mahesh Kori <maheshkori@git.edu>, praman_19@yahoo.com, asha.rajiv@jainuniversity.ac.in, madhusud@iitk.ac.in,

Sun, Jan 14, 2024 at 8:01 AM

"Mrs. Jessy Michla J R" <jessymichla@klu.ac.in>, Aruna ST <aruna_reddy@nal.res.in>, Abanti Nag <abanti@nal.res.in>, Augustin MJ <mjaugustin@nal.res.in>, "Dr. Siva Subbarao Patange" <siva@nal.res.in>, Karunakaran Madhavan <madhavank@nal.res.in>, Jeyaseelan AR <jeyaseelan.a@nal.res.in>, "Dr. V. M. Sreehari ." <sreehari_vm@mech.sastra.edu>, hema@nal.res.in, MANISH KUMAR MALIK <manish.kumar2@hal-india.co.in>, "Pradeep K. Sahoo" <pks@nal.res.in>, Suresh <suresh.mjl@gmail.com>, Nadeem Masood <nadeem.serc@gmail.com>, Girish M Naikar Machine Design <girishm.mmd21@bmsce.ac.in>, nn@nal.res.in, ramji_mano@mae.iitb.ac.in, anjus@nal.res.in, aanand.rde@gov.in, "Dr. Rajeev Chaturvedi" <rajeevc@urisc.gov.in>, Suma Santhosh Cherian <suma_santhosh@vssc.gov.in>, "Dr. SUGAVANESWARAN M" <sugavaneswaranm@gmail.com>, gangadharanr@mae.iitb.ac.in, Raja S <raja@nal.res.in>, Anjana Jain <janjana@nal.res.in>, meenusri@nal.res.in, manint@nal.res.in, Dwarakanathan D <nathan@nal.res.in>, Swapnil Ashok Patil <me21resch01003@iitb.ac.in>, shrirang.m.pathak@gmail.com, Mohan Kumar <mmk@nal.res.in>, "Dr. Durgesh Bahadur Singh" <durgesh@urisc.gov.in>, RAHUL GHOSH <rghosh@urisc.gov.in>, Rahul Ghosh <rahulghosh71@gmail.com>, Sudhir Sastry Y B <sudhirsastri@gmail.com>, GUNJAN RASTOGI <gunjan@urisc.gov.in>, senthil kumar <senthilrpf@gmail.com>, Shashibhushan Tiwari <sb_tiwari@vssc.gov.in>, Vinu Viswanath V <vinu_viswanath@vssc.gov.in>, Vikas B G <vikasbg@bmsce.ac.in>, s_mathiazhagan@ipsc.gov.in, Mathiazhagan S <smathi.research@gmail.com>, V Pawan <v.pawan8888@gmail.com>, DEEPAK Y <deepakyogeesh@gmail.com>, bsudarshan.mech@bmsce.ac.in, Shivaprasad MV <sprasad@nal.res.in>, tsivaranjani@nal.res.in, Mehreen Sana <mehreen.sana29@gmail.com>, ramji_mano@iitb.ac.in, arunabha datta <arunabha.datta@yahoo.co.in>, senthilkumar@nal.res.in, Vivek EK <vivekek@nal.res.in>, balaji-h.ada@gov.in, Dhayanidhi J <jdhayanidhi@nal.res.in>, sandhya.rao@nal.res.in, Ravindra Singh <ravindrasingh.ada@gov.in>, Mutturaj M <mutturajm79@gmail.com>, rameshkumar.r2020@vitsstudent.ac.in, mkhandwe@bhor.com, Srinivasa Cs <srinivasa.mech@gmail.com>, murali_p@nal.res.in

Respected Sir/Madam,

This is to inform you to submit the full paper which has been accepted for "Oral presentation" at INCCOM 18 to be held during 8-9 Feb 2024.

You are requested to register for the conference at the earliest.

Please Ignore ..if the registration is already done

Your full paper will be published in the **SPRINGER PROCEEDINGS in MATERIALS** volume entitled "**Advances in Materials & Manufacturing Processes for Composite Applications**- Proceedings of 18th ISAMPE National Conference on Composites (INCCOM18)".

Last date for registration: 01 Feb 2024

Last date for full paper submission: 31 Jan 2024

Note :

1. The presenting author should compulsorily register for the Conference
2. Each registered author can present only one paper

Srinivasa Cs <srinivasa.mech@gmail.com>
To: "HAL.mahdeva Nagral.2" <mahdev.nagral@gmail.com>

Sun, Jan 14, 2024 at 9:50 AM

[Quoted text hidden]

MOHAN KUMAR M <inccom18@gmail.com>

Mon, Jan 22, 2024 at 5:42 AM



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ISAMPE National Conference on Composites

INCCOM-18

8-9 February 2024



Certificate

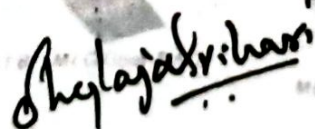
This is to certify that Prof./Dr./Mr./Mrs.

S R I N I V A S A L C . S

from Alva's Institute of Engineering & Technology, Moodabidri. participated / presented a paper in **INCCOM-18** conference

organized by ISAMPE, Bangalore Chapter along with CSIR-NAL, at CSIR-NAL, Bangalore, during 8-9 February, 2024.


(Mr Mohan Kumar M)
Convener


(Dr Shylaja Srihari)
Co-Convener


(Dr S T Aruna)
Chairman



Indian Society for Advancement of Materials and Process

Engineering, Bangalore Chapter

Aeronautical Society of India Building, Suranjan Das Rd, HAL 3rd Stage, Junction,

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Phone : 080-25057186 Email : inccom18@gmail.com & website: www.isampe.org

No. 114

RECEIPT

Date 19/02/2024

Received with thanks from Srinivasa C.S.

Dollars/Rupess

By Cash/Demand Draft/Cheque No. UPI Transaction No: 401905981088 Dated 19/01/2024

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(Cheque subject to realization) on account of Inccom Conference Registration Fee

Rs. 2000/-

J. V. Arshini
Treasurer

Alvas Institute of Engineering & Technology

Mijar, Moodabidri

Dakshina Kannada - 574227

State Name : Karnataka, Code : 29

AIET FO JV-OTH Voucher

No. : **AIET/JV-OTH/01114/23-24**

Dated : **4-Mar-2024**

Particulars	Debit	Credit
Expenses Payable <i>Dr</i>	29,088.00	
Agst Ref Kumar Swamy MC 10,108.00 <i>Dr</i>		
Agst Ref Richard Pinto 1,920.00 <i>Dr</i>		
Agst Ref Shashikumar 2,500.00 <i>Dr</i>		
Agst Ref Sushanth Lobo 11,405.00 <i>Dr</i>		
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(Page 2)

No. : **AIET/JV-OTH/01114/23-24**

Dated : **4-Mar-2024**

Particulars	Debit	Credit
Agst Ref : Srijan Das-Hosa Cart 505.00 Dr		
To AEF-Alvas Education Foundation		29,088.00
On Account of : Being the amt paid towards attendinf National Conference @ Blore(Srinivas),Co., Visit @Blore(Kumarsway) purchase of wood to agriculutual Dept.,(Shashikumar),Co.,visit @Blore(Susuhanth Lobo) ,Patent Application fees(Richard Pinto), refreshmentof campusdri		
	₹ 29,088.00	₹ 29,088.00

Authorised Signatory

