

Number of research papers per teachers in the Journals notified on UGC website in A.Y. 2019-20

S.No.	Title of paper	Name of the author/s	Department of the teacher	Name of the journal	ISSN number	Link to website of the Journal	Link to article/paper/abstract of the article	Is it listed in UGC Care list/Scopus/Web of Science/other, mention	Page No.
1	Performance analysis of cryogenically treated plus tempered carbide inserts in turning of inconel 718 using cryogenic minimum quantity lubrication cooling technique	Allu Venkata Pradeep. , et al.	Mechanical Engineering	Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology	1350-6501	https://journals.sagepub.com/home/pij	https://www.scopus.com/inward/record.uri?eid=2-s2.0-85064729486&doi=10.1177%2f1350650119845744&partnerID=40&md5=43a8f78fd4149d44f63f277d8dded463	Scopus	3
2	The influence of firm age on the relationship between the capital structure determinants and firm value	Mandala G, Gandreti V.R.R. , et al.	Electronics and Communication Engineering	International Journal of Scientific and Technology Research	2319-7064	https://www.ijsr.net/?gclid=Cj0KCQjwma6TBhDIARIsAOKuANzKrc4qRjLEQATRbewnXnqcY8zLqseC9IMBZFrogPxDNMXNiCc2zwaAiZSEALw_wcB	https://www.scopus.com/inward/record.uri?eid=2-s2.0-85075312186&partnerID=40&md5=67267b10e19023bcb5b52f06cdeb35b1	Scopus	4
3	Classification of the third and fourth heart sounds using intrinsic time-scale decomposition and support vector machine technique	Sai Bharadwaj B. , Sumanth Kumar C.	Electronics and Communication Engineering	International Journal of Innovative Technology and Exploring Engineering	2278-3075	https://www.ijitee.org/	https://www.scopus.com/inward/record.uri?eid=2-s2.0-85075181629&doi=10.35940%2fijitee.A4500.119119&partnerID=40&md5=f40b3ba2ee4e775574495e192437c727	Scopus	5
4	E-banking in india: with reference of consumers perception of internet banking in visakhapatnam district	Mandala G.N., Gandreti V.R.R.et al.	Master of Bussiness Administration	International Journal of Innovative Technology and Exploring Engineering	2278-3076	https://www.ijitee.org/	https://www.scopus.com/inward/record.uri?eid=2-s2.0-85075179040&doi=10.35940%2fijitee.K1966.119119&partnerID=40&md5=df14ddd919ffdbe478a1b1a634fb491c	Scopus	6
5	A review on giant piezoelectric coefficient, materials and applications	Ramesh S., Chandra Sekhar B. , et al.	Basic Sciences and Humanities	Biointerface Research in Applied Chemistry	2069-5837	https://biointerfaceresearch.com/	https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073745946&doi=10.33263%2fBRIAC95.205216&partnerID=40&md5=33aff2639c19c6995be5ac777b601daf	Scopus	7
6	Industry relevant curriculum design in engineering in india: a case study	Akankshra Mishra , Sethi Pragati	Electrical and Electronics Engineering	Journal of Engineering Education Transformations	23941707	https://iueee.org/journal-jeet/	https://www.scopus.com/inward/record.uri?eid=2-s2.0-85087298565&doi=10.16920%2fjeet%2f2019%2fv33i2%2f139120&partnerID=40&md5=6991cc37b544b2d8135855ede25f9add	Scopus	8
7	Extended optimization procedures for static list based task scheduling algorithms for hedcs	Vijaya Kumar K. , Laxmi Lydia E., Amaranatha Reddy P.	Computer Science Engineering	International Journal of Recent Technology and Engineering	2277-3878	https://www.ijrte.org/	https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074437195&doi=10.35940%2fijrte.B1003.0982S1119&partnerID=40&md5=d4d11c2ed5b7d8a96d70b4398a433e14	Scopus	9
8	Low power aware standard cells using dual rail multi threshold null convention logic methodology	Suresh M., Panda A.K., Sudhakar J.	Electronics and Communication Engineering	Microprocessors and Microsystems	1419331	https://www.journals.elsevier.com/microprocessors-and-microsystems	https://www.scopus.com/inward/record.uri?eid=2-s2.0-85065426962&doi=10.1016%2fj.micpro.2019.04.003&partnerID=40&md5=1d57953a04ed6ee0197a4599550d68fb	Scopus	10
9	Power-delay efficient asynchronous design approach using galeor	Suresh M., Sudhakar J. , Panda A.K.	Electronics and Communication Engineering	International Journal of Advanced Research in Engineering and Technology	2350-0328	http://www.ijarset.com/	https://www.scopus.com/inward/record.uri?eid=2-s2.0-85078894166&doi=10.34218%2fIJARET.10.1.2019.007&partnerID=40&md5=ee030e405b6e2e785690484021dee0a4	Scopus	11

S.No.	Title of paper	Name of the author/s	Department of the teacher	Name of the journal	ISSN number	Link to website of the Journal	Link to article/paper/abstract of the article	Is it listed in UGC Care list/Scopus/Web of Science/other, mention	Page No.
10	Numerical modelling on radiative dissipative mhd flow of a chemically casson fluid over an exponentially inclined stretching surface	Kumar P.V., Ibrahim S.M., Jyothsna K.	Basic Sciences and Humanities	Mathematical Modelling of Engineering Problems	2369-0739	https://www.iieta.org/Journals/MMEP	https://www.scopus.com/inward/record.uri?eid=2-s2.0-85078288392&doi=10.18280%2fmmep.060403&partnerID=40&md5=3a73d4f22ccb9307c4811fbf52e09112	Scopus	12
11	Smart rescue system from bore well	Bethapudi Prakash., Netaji G.	Information Technology	Journal of Advanced Research in Dynamical and Control Systems	1943-023X	https://www.jardcs.org/	https://www.scopus.com/inward/record.uri?eid=2-s2.0-85075625149&doi=10.5373%2fJARDCS%2fV11SP10%2f20192804&partnerID=40&md5=596f8351d7774cd6dd26a8dde7aa4664	Scopus	13
12	Text mining with hadoop: enforcement of document clustering using non-negative matrix factorization knmf	Lydia E.L, K.Vijaya Kumar, Shankar K.	Computer Science Engineering	International Journal of Recent Technology and Engineering	2277-3878	https://www.ijrte.org/	https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074192216&partnerID=40&md5=2499086ff20af81c41150f9b7eaf5bdd	Scopus	14
13	Performance investigation of deep cryogenically treated and tempered carbide inserts in turning of inconel 718	Allu Venkata Pradeep, Dumpala L.R., Shinagam R.	Mechanical Engineering	Defence S and T Technical Bulletin	19856571	https://publons.com/journal/13712/defence-s-and-t-technical-bulletin/	https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074029516&partnerID=40&md5=799cf13bb68b7de31affc0b8087b0f4f	Scopus	15
14	Modelling and statistical analysis of surface roughness by taguchi and rsm techniques in hard turning of aisi 52100 steel with multilayer coated carbide insert	Allu Venkata Pradeep, Lingaraju D., Ramakrishna S.	Mechanical Engineering	International Journal of Machining and Machinability of Materials	1748-572X	https://www.inderscience.com/jhome.php?jcode=ijmmm	https://www.scopus.com/inward/record.uri?eid=2-s2.0-85070724416&doi=10.1504%2fIJMMM.2019.101488&partnerID=40&md5=4c60c9d2041116febdc12b5720e95e6	Scopus	16
15	An experimental investigation of control parameters in five-axis hybrid parallel kinematic machine in milling of aluminium 6061-t3	Suryam L.V., Balakrishna B.	Mechanical Engineering	International Journal of Machining and Machinability of Materials	1748-572X	https://www.inderscience.com/jhome.php?jcode=ijmmm	https://www.scopus.com/inward/record.uri?eid=2-s2.0-85070684783&doi=10.1504%2fIJMMM.2019.101485&partnerID=40&md5=b3d2c932c9f699d055c91ec175d56199	Scopus	17
16	Effect of MQL on roughness, white layer and microhardness in hard turning of AISI 52100	Allu Venkata Pradeep, Dumpala L., Ramakrishna S.	Mechanical Engineering	Emerging Materials Research	20460147	https://www.icevirtuallibrary.com/toc/jemmr/current?gclid=CjwKCAjwv-GUBhAzEiwASUMm4jb5pbY_jc2IePr4-RbOBgkdgS5v4USADeBLHfnVxrDvu3QoZARTexoCu0EQAvD_BwE	https://www.scopus.com/inward/record.uri?eid=2-s2.0-85064770586&doi=10.1680%2fjemmr.18.00038&partnerID=40&md5=a8f0373aa8b17956962e1f812624040a	Scopus	18
17	Effect of machining parameters over surface roughness in contour milling of aluminium 2024-T351 using 5-axis parallel kinematic machine	Suryam L.V., Balakrishna B.	Mechanical Engineering	International Journal of Agile Systems and Management	1741-9182	https://www.inderscience.com/jhome.php?jcode=ijasm	https://www.scopus.com/inward/record.uri?eid=2-s2.0-85063937010&doi=10.1504%2fIJASM.2019.098709&partnerID=40&md5=fe9dafd792275c7cd7f8ef4ec2a71bbb	Scopus	19



Document details - Performance analysis of cryogenically treated plus tempered carbide inserts in turning of Inconel 718 using cryogenic minimum quantity lubrication cooling technique

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Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology

Volume 233, Issue 12, 1 December 2019, Pages 1810-1819

Performance analysis of cryogenically treated plus tempered carbide inserts in turning of Inconel 718 using cryogenic minimum quantity lubrication cooling technique(Article)

Allu, V.P., Raju, D.L., Ramakrishna, S.

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^bDepartment of Mechanical Engineering, Vignan's Institute of Engineering for Women, Visakhapatnam, India

^cDepartment of Mechanical Engineering, Gayatri Vidhya Parishad College of Engineering, Visakhapatnam, India

Abstract

The present study deals with performance investigation of cryogenically treated plus tempered carbide inserts during machining of Inconel 718. A novel cooling approach of combined minimum quantity lubrication with cryogenic coolant, cryogenic minimum quantity lubrication is examined to improve the machinability of Inconel 718 and compared with dry, wet, minimum quantity lubrication, and cryogenic cooling conditions. Tool wear, cutting forces, and chip morphology were analyzed to evaluate the effect of cooling under different conditions. The results revealed that minimum quantity lubrication and cryogenic conditions exhibited superior performance than wet and dry conditions. However, severe tool fracture and cutting forces were observed in cryogenic machining which is an outcome of hardened surface of nickel alloy due to cryogenic fluid. Cryogenic minimum quantity lubrication was understood to be the best machining condition generating least cutting force and tool wear. Furthermore, examining chip morphology under scanning electron microscopy revealed that cryogenic minimum quantity lubrication performed stable machining. © IMechE 2019.

SciVal Topic Prominence

Topic: Cutting Fluids | Lubrication | Cutting Process

Prominence percentile: 99.328

Author keywords

chip morphology cryogenic minimum quantity lubrication cutting force Inconel 718 minimum quantity lubrication tool wear

Indexed keywords

Engineering controlled terms:

Carbide cutting tools Carbides Cooling Cryogenics Cutting Cutting tools Morphology Nickel alloys Scanning electron microscopy Thermal management (electronics) Wear of materials

Engineering uncontrolled terms

Chip morphologies Cutting forces Inconel 718 Minimum quantity lubrication Tool wear

Engineering main heading

Lubrication

Cited by 10 documents

Chen, M., Peng, R., Zhao, L.

Effects of minimum quantity lubrication strategy with internal cooling tool on machining performance in turning of nickel-based superalloy GH4169

(2022) *International Journal of Advanced Manufacturing Technology*

Amrita, M., Revuru, R.S., Siva, B.

Sustainability analysis of machining Inconel 718 using graphene-based nanofluids and self-lubricating tools

(2021) *Smart and Sustainable Manufacturing Systems*

Augsperger, T., Koch, M., Lakner, T.

Development of a virtual sensor for the comparison of heat partitions in milling under cryogenic cooling lubrication and high-pressure cutting fluid supply

(2021) *CIRP Journal of Manufacturing Science and Technology*

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Document details - The influence of firm age on the relationship between the capital structure determinants and firm value

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International Journal of Scientific and Technology Research

Volume 8, Issue 11, 1 November 2019, Pages 2958-2962

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The influence of firm age on the relationship between the capital structure determinants and firm value(Article)

 dala, G.N., Sirisetti, S., Srinivasa Rao, K., **Gandreti, V.R.R.**, Gupta, N.

^aGITAM Institute of Management, GITAM Deemed to be University, Visakhapatnam Department of Management Studies, Vignan's Institute of engineering for women, Visakhapatnam Mittal School of Business, Lovely Professional University, Punjab, India

^bDepartment of Management Studies, Vignan's Institute of engineering for women, Visakhapatnam, Andhra Pradesh, India

^cMittal School of Business, Lovely Professional University, Punjab, India

Abstract

Researchers have always made laudable contributions in examining the factors that influence individuals and business firms to adopt and maintain the capital structure decision during a firm's life cycle and the influence of firm age on the relationship between the capital structure determinants and firm value. The research methodology is carried out to examine the financing choices of the top 100 firms in terms of market capitalization through a close outlook with the business life cycle. The determinant of capital structure decision is based on profitability, liquidity, nature of the industry, timing, and timing of the issue. Debt is taken as a fundamental source in an early stage where as in the maturity stage; firms re-balance their capital structure gradually substituting debt for internal capital. This study aims to generate an idea of the dynamic evolution of the firm across the different stages, investment/disinvestment needs, profitability, cash flow generation, and risk changes. Moreover, the study is carried out with a comprehensive analysis of the firm's capital structure and the main elements in the classical theories, i.e. Trade-off Theory and Pecking Order Theory. © IJSTR 2019.

SciVal Topic Prominence ①

Topic: Asset Pricing Models | Value Premium | Factor

Prominence percentile: 97.273

①

Author keywords

[Capital Structure](#) [Financial Growth Cycle](#) [Small And Medium-Sized Firms](#) [Sources of Finance](#)

ISSN: 22778616

Source Type: Journal

Original language: English

Document Type: Article

Publisher: International Journal of Scientific and Technology Research

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Vignan's Institute of
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K.J.Somayajulu VSEZ (P.O.),
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Document details - Classification of the third and fourth heart sounds using intrinsic time-scale decomposition and support vector machine technique

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International Journal of Innovative Technology and Exploring Engineering

Volume 9, Issue 1, November 2019, Pages 1172-1177

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Classification of the third and fourth heart sounds using intrinsic time-scale decomposition and support vector machine technique (Article) (Open Access)

Sai Bharadwaj, B., Sumanth Kumar, C.

^aDepartment of Electronics and Communications, Vignan's Institute of Engineering for Women, Visakhapatnam, Andhrapradesh, India^bDepartment of Electronics and Communications, GITAM Institute of Technology, GITAM Deemed to be University, Visakhapatnam, Andhrapradesh, India

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Abstract

The two diastolic heart sounds reflecting the malfunctionality of heart are third and fourth heart sounds (S3 and S4). Early detection of heart failures can decrease the risk by identifying the abnormal heart sounds through Phonocardiogram (PCG) signal analysis. In this paper abnormal heart sounds are identified and classified using Intrinsic time scale decomposition (ITD) and Support vector machine (SVM). The proposed framework has been tested on authenticated database signals under abnormal conditions. The success rate is really conquering for the SVM classifier with an accuracy over 94% in the S3 detection and 91% for the S4, which reveals the effectiveness and high efficiency of the proposed work. © BEIESP.

SciVal Topic Prominence ①

Topic: Heart Sounds | Phonocardiography | Cardiology

Prominence percentile: 94.108 ①

Author keywords

Intrinsic timescale decomposition

PCG signal

Support vector machine

ISSN: 22783075

Source Type: Journal

Original language: English

DOI: 10.35940/ijitee.A4500.119119

Document Type: Article

Publisher: Blue Eyes Intelligence Engineering and Sciences Publication

Sai Bharadwaj, B.; Department of Electronics and Communications, Vignan's Institute of Engineering for Women, Visakhapatnam, Andhrapradesh, India;

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K.J.Peta, VSEZ, P.O.
Visakhapatnam





Document details - E-banking in India: With reference of consumers perception of internet banking in Visakhapatnam District

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International Journal of Innovative Technology and Exploring Engineering

Volume 9, Issue 1, November 2019, Pages 1979-1982

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E-banking in India: With reference of consumers perception of internet banking in Visakhapatnam District(Article)(Open Access)

Mandala, G.N., Tentu, S., Anjani Devi, S., **Gandreti, V.R.R.**^aInstitute of Management, GITAM Deemed to be University, Visakhapatnam, India^bVignan's Institute of Engineering for women, Visakhapatnam, India

Abstract

Objective: As of late, Internet Banking has turned into a useful stage to effectively get to banking administrations. The banking business has experienced emotional changes utilizing the idea of internet banking. Internet banking is characterized a technique for banking through internet entry in which clients can use various types of banking administrations. **Methodology:** The essential goal of this research is to recognize the central point that impact internet banking discernment in Visakhapatnam District, Andhra Pradesh, India. **Result:** In this paper we dissect the customers' attributes of internet banking utilizations in Visakhapatnam District and likewise found that internet banking is impacted by its Perceived reliability, Perceived ease of use and Perceived usefulness. **Conclusion:** The discoveries checked the research theories and affirmed that perceived usefulness, Perceived ease of use and Perceived Reliability, all effect mentality towards the goal of internet banking observation in Visakhapatnam District. © BEIESP.

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SciVal Topic Prominence ①

Topic: SERVQUAL | Loyalty | Consumer Satisfaction

Prominence percentile: 98.790

①

Author keywords

[Customers](#) [Factors](#) [Internet banking](#) [Perception](#) [Technology acceptance](#)

ISSN: 22783075

Source Type: Journal

Original language: English

DOI: 10.35940/ijitee.K1966.119119

Document Type: Article

Publisher: Blue Eyes Intelligence Engineering and Sciences

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Document details - A review on giant piezoelectric coefficient, materials and applications

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Biointerface Research in Applied Chemistry

Volume 9, Issue 5, 15 October 2019, Pages 4205-4216

A review on giant piezoelectric coefficient, materials and applications(Review) (Open Access)

Ramesh, S., Ravinder, D., Naidu, K.C.B., Kumar, N.S., Srinivas, K., Baba Basha, D., **Chandra Sekhar, B.** ^aDepartment of Physics, GITAM Deemed to be University, Bangalore, 562163, India^bDepartment of Physics, Osmania University, Hyderabad, Telangana 500007, India^cDepartment of Physics, JNTUA, Anantapuramu, A.P 515002, India[View additional affiliations](#)

Abstract

The current work deals with the review of various piezoelectric materials and their piezoelectric coefficient (d_{33}) for probable piezoelectric device applications. In addition, the comprehensive analysis of the data of d_{33} obtained for distinct compounds is also made. Furthermore, the best suited material compositions are highlighted. © 2019 by the authors.

SciVal Topic Prominence

Topic: Ceramics | Ferroelectric Materials | Barium Titanates

Prominence percentile: 93.509

Author keywords

[Electroceramics](#) [Ferroelectrics](#) [Piezoelectrics](#) [PZT](#) [Sensors](#)

ISSN: 20695837

Source Type: Journal

Original language: English

DOI: 10.33263/BRIAC95.205216

Document Type: Review

Publisher: AMG Transcend Association

Naidu, K.C.B.; Department of Physics, GITAM Deemed to be University, Bangalore, India;

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Veena, E. , Mallikarjuna, A. ,
Basha, D.B.Structure, morphology, and
ferroelectric behavior of Ba1-
yZnyTiO3 (y = 0.2, 0.4, 0.6 & 0.8)
nanoceramics(2022) *Digest Journal of
Nanomaterials and
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Babu, T.A.Colossal dielectric behavior in
Al0.8Gd (y = 0.01–0.04)
nanostructures(2021) *Journal of Materials
Science: Materials in Electronics*Manohar, A. , Krishnamoorthi,
C. , Naidu, K.C.B.Dielectric, Magnetic
Hyperthermia and
Photocatalytic Properties of
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Industry Relevant Curriculum Design in Engineering in India: A Case Study

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Abstract: Modernization of professional education to suit the industrial needs is a basic requirement of present times. In this paper, a case study of electrical engineering students in the present mode of education is presented. A survey has been done which shows the lacuna in the present system of education from the student's perspective.

Keywords: Times New Roman, 10 pttext justified: keyword1, keyword2, keyword3Times New Roman (Maximum 6 keywords)

1. Introduction

Inflow of private investors has been one of the fundamental reasons behind improving the literacy rate in India and also facilitating the prospects of higher education for the Indians. Although there is a rise in literate candidates with professional education, employability of these candidates is a major issue that the country is facing. A highly populated country like India cannot provide job to all its engineers in the country. On the other hand, the professionals are not found to be equipped enough to be able to find themselves jobs in the global market. Revision of the present curriculum to make the students more

equipped for industries will not only improve the employability of the budding engineers in the country but also internationally.

According to The Indian Express, a recent learning outcome assessment of undergraduate engineering students conducted by Stanford University and the World Bank has found that the overall higher order thinking skills of Indian students are "substantially lower" than the Chinese and Russians. The survey - conducted last year - had a respondent base of roughly 5,000 first-year and third-year B.Tech students from 200 randomly-selected public and private engineering institutes, not including the IITs. Similar learning assessments were conducted for engineering students in China and Russia. The daily added that this is the preliminary finding, part of the Technical Education Quality Improvement Programme (TEQIP) supported by the World Bank, and that a detailed report will be presented formally to the HRD Ministry this week.

In order to overcome the problem, many academicians and researchers have suggested various solutions in terms of changing the teaching methodology. Metri et al. [1] have discussed project-based learning approach for the micro-controller and micro-processor system design. Anil Kumar et al. [2] have used a group discussion approach to teach Digital Design through Verilog. Lydia et. al. [3] have suggest a combination of methodologies to substitute the traditional method so that the students obtain a better understanding of the subject.

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Document details - Extended optimization procedures for static list based task scheduling algorithms for hedcs

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International Journal of Recent Technology and Engineering

Volume 8, Issue 2 Special Issue 11, September 2019, Pages 15-20

Extended optimization procedures for static list based task scheduling algorithms for hedcs(Article)(Open Access)

Vijaya Kumar, K., Laxmi Lydia, E., Amaranatha Reddy, P.

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Abstract

--No matter how powerful a single system is efficient at processing, there are still reasons to Control the power of multiple computational units. The Distributed computational system performs scheduling tasks achieved by the processors to minimize the execution time in any application. Despite the problem in determining NP-Complete the execution time in Scheduling is minimized. This paper identifies, a specific different algorithm Sorted Nodes in Leveled DAG Division (SNLDD) based on Task-Scheduling. The fundamental principle of this algorithm is to partition the data as a Directed Acyclic Graph (DAG) two stages and categorize each task of every stage in decreasing order depending upon the estimated size. Outcomes of the proposed algorithm are processed using correlative analysis and productive outcome with respect to HEFT with CPOP is implemented among existing algorithms. With respect to the comparative analysis of the outcomes, the performance of the suggested algorithm with SPOP implements improved execution in the aspect of speedup, effectiveness, complexity, and excellence. Further, a new algorithmic strategy SPOP and CPOP has been developed and executed in the proposed SNLDD in HEFT. ©BEIESP.

SciVal Topic Prominence

Topic: Task Scheduling | Heterogeneous Computing | DAG

Prominence percentile: 91.328

Author keywords

Task Scheduling Critical Path on Processor Heterogeneous Earliest Finish Time
Sorted Nodes in Leveled DAG Division Superior Performance Optimization Procedure

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Low power aware standard cells using dual rail multi threshold null convention logic methodology

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Low power

Threshold gates

ABSTRACT

Over the last few decades, low power design has become a necessity in VLSI design, particularly for movable and high performance systems. Power dissipation is crucial for deep sub-micron technologies. There is a need for efficient leakage diminution techniques to minimize MOS leakage currents. Reduced leakage currents extend the life of all battery operated devices like mobiles, laptops. To reduce the power dissipation in digital VLSI design, we use different types of techniques. Compared to bipolar technology, CMOS technology provides low power dissipation. But, still this topology suffers with high leakage and dynamic power consumption. These hiccups can be overcome by making use of multi-threshold and asynchronous methodologies into the conventional CMOS technology. In this paper, we investigate the performance of various threshold templates and combinational circuits using various low power and asynchronous topologies. Latest topologies like Multi Threshold CMOS (MTNCL) and Multi Threshold Null Convention Logic (MTNCL) are compared with existing CMOS technology in terms of constraints like power dissipation, delay, slew rate and energy performance.

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1. Introduction

Low power consumption is required to optimize battery back-up in digital devices, to ensure stable and optimum working of circuit and also for longer device life. In existing CMOS technologies sub threshold leakage current is larger than other leakage components. As technology scales down to nanometer, sub threshold leakage power increases exponentially with the reduction of supply voltage. Minimizing leakage power is an important task in portable devices to increase the battery life. Many techniques have been proposed for designing VLSI circuits with low power. The proposed techniques CMOS, MTCMOS and MTNCL are effective techniques to reduce power consumption. These logics can provide high speed and low power designs. In this paper, Multiplexer is designed with proposed techniques and simulation results are compared with existing techniques.

Sources of power dissipation

Power dissipation is the rate at which energy is drawn from power supply and is directly proportional to the average power dissipation [1]. The average power dissipation will decide

the battery life time.

$$P_{avg} = C_L V_{dd}^2 f$$

Power consumption is proportional to the sub threshold current, if we decrease the current we can decrease the power consumption and this current is decreased if we increase the threshold voltage. So, basically to ensure less power consumption, threshold voltage can be increased.

Power dissipation can be divided into two sorts: Static and Dynamic.

1.1. Static power dissipation

Static power dissipation is caused by CMOS circuits when it is in standby mode [2]. Sub threshold leakage, Reverse bias leakage are diverse leakage components that constitute static power. Static power can be expressed as,

$$P_{static} = V_{DD} I_{leakage}$$

1.2. Dynamic power dissipation

Dynamic power dissipation is from current flow during logic transitions [3]. Dynamic power can be expressed as,

$$P_{avg} = \alpha C_L V_{DD}^2 f$$

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Document details - Power-delay efficient asynchronous design approach using galeor

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International Journal of Advanced Research in Engineering and Technology

Volume 10, Issue 1, 2019, Pages 70-82

Power-delay efficient asynchronous design approach using galeor(Article) (Open Access)

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Abstract

Leakage power dissipation is a chief alarm in nanometer & deep submicron technologies. In CMOS circuits, leakage current has become major supplier to the whole power dissipation attributable to the unremitting trend of technology scaling. The main objective of this paper is to reduce leakage power dissipation with diverse leakage diminution techniques. We propound a novel seepage decline methodology named "Multi Threshold Null Convention Galeor" which can attain superior leakage power deduction analogize to the other techniques agitate in this paper. In order to extant the rendition of proffer approach, a full adder is schemed and there by demonstrate the power, delay, slew rate and energy. All 27 threshold standard cells are designed and simulated for low power performance; delay evaluation and is presented in this paper. © IAEME Publication

SciVal Topic Prominence

Topic: VLSI Circuit | Gating | Methodology

Prominence percentile: 65.451



Author keywords

[Delay](#) [Energy](#) [GALEOR](#) [Low power loss](#) [MTNCL](#)

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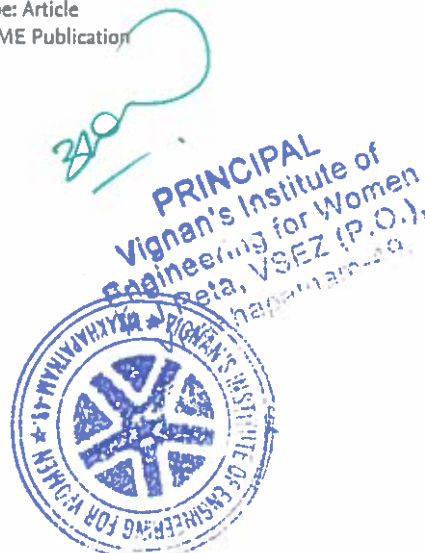
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Numerical Modeling on Radiative Dissipative MHD Flow of a Chemically Casson Fluid over an Exponentially Inclined Stretching Surface

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ABSTRACT

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Keywords:

Casson nanofluid, inclined stretching sheet, thermal radiation, viscous dissipation, HAM

This article analyzes the magnetohydrodynamic Casson nanofluid flow over an exponentially inclined stretching permeable surface considering thermal radiation, suction/injection, heat source and chemical reaction in the flow region. Mathematical formulation is developed by assuming boundary layer approach. The leading differential equations are modelled by considering similarity transformations and solved using homotopy analysis method (HAM). Parametric behaviour of various physical constraints on velocity, temperature and concentration profiles is discussed through tables and graphs. Expressions of friction factor, rate of heat and mass transfer are evaluated graphically and also in tabular form for different values of parameters. The obtained results are in fabulous agreement with the existing results. Dual solutions are presented by considering suction and injection.

1. INTRODUCTION

Heat transfer has much utilization in several branches of engineering and science, e.g. reactor cooling, nuclear waste disposal, energy production, heat conduction in tissues, etc. Extensive studies on heat transmission in non-Newtonian fluids have been done by many investigators in previous centuries. Gupta and Gupta [1] first analysed the characteristics of heat transfer on a stretching sheet. Corell [2] studied the behavior of viscous fluid flow over a nonlinear stretching sheet. Shahzad et al. [3] obtained the exact solution of heat transfer flow along axisymmetric nonlinear radial stretching surface. Some relevant investigations on this subject can be found in the references [4-7].

Nanoparticles can be described as particles having size between 1-100nm. Nanoparticles are a field of dominant logical attention due to its broad variety of uses in utilization of energy, toluene, microelectronic, chemical production, floor heating, minerals etc. The terminology nanofluid was induced by Choi and Eastman [8]. Makinde and Aziz [9] discussed the behavior of nanofluid flow over a linear stretching sheet. Manusr and Ishak [10] studied the nature of a nanofluid flow past a stretching/shrinking sheet by considering convective boundary condition. Mabood et al. [11] derived the concept on MHD boundary layer flow of nanofluids over a nonlinear stretching sheet. Radiation effects on viscous nanofluid flow over a nonlinear stretching sheet were investigated by Hady et al. [12]. Nadeem et al. [13] and Mustafa et al. [14] were proposed a numerical solution of non-Newtonian nanofluid over a stretching sheet. Flow and heat transfer characteristics of nanofluid over a non-linear stretching sheet using similarity solutions was carried out by Hamad and Ferdows [15]. Chemical reaction and radiation effects on MHD mixed convection flow of a Casson nanofluid over a non-linear permeable stretching sheet was examined by

Jayarami Reddy et al. [16]. The influence of heat source and radiation on MHD stagnation point flow of Carreau nanofluid with suction and injection was analyzed by Jayarami Reddy et al. [17]. Suneetha et al. [18] reported the effects of Ohmic heating and thermal radiation on MHD mixed convective flow with various parameters.

Non-Newtonian fluids have made a notable attention due to its engineering and industrial applications. Examples of these fluids are paints, suspensions, emulsions, lubricants, and many biological fluids. The common features of all these daily used products are that they do not monitor Newton's law of viscosity. Therefore these fluids are labelled as non-Newtonian fluids. Thus, in order to study characteristics of these complex fluids, many fluid models have been suggested. These models are primarily categorized as time dependent fluids, viscoelastic fluids, time independent fluids. Out of these models, Casson fluid is one of time dependent fluid. Casson fluid model was proposed by Casson in 1959. Some samples of Casson fluid consist of honey, jelly, concentrated fruit juices and tomato sauce. Mustafa and Khan [19] discussed the magnetic field effect on Casson nanofluid over a nonlinearly stretching sheet. Ibrahim and Makinde [20] discussed the stagnation point flow of Casson nanofluid subject to slip and convective boundary conditions. Ibrahim [21] gave a numerical solution for the study of chemical reaction and heat source on MHD Casson nanofluid over a non-linear stretching sheet. The influence of chemical reaction and viscous dissipation on MHD mixed convection flow of Casson nanofluid over a nonlinear permeable stretching sheet was analyzed by Ibrahim et al. [22]. Mondal et al. [23] analyzed the convergence stability of MHD Casson nanofluid flow with Soret and Dufour effects. Using HAM, Kuvshinov et al. [24] studied the 3D radiative MHD Casson nanofluid over an exponentially porous stretching sheet under convective boundary conditions.

Smart Rescue System from Bore Well

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Abstract— India is the fast emergent country, where majority of the people depend and use natural resources like water, petrol, gas that is available inside earth's surface. Most of the people are prone to accidents in diverse ways while annoying to use these resources. The accidents occurred by open bore well and the expenses to rescue these accidents are being escalating day by day. Particularly kids are losing their lives not only while playing but also in diverse ways due to the open bore-well which are going unnoticed. The proposed system is developed in order to rescue children and other small creatures from bore well. This consists of a sensor kept at top of bore-well. Once it identifies anyone falling into the bore well, it would provide an alarm along with information in the form of message to the concerned team and the neighboring society like police station, fire station president and bore owner with continuous alerts. Also the key feature about this system is, if it sense the child or anything falling into it then automatically the child or object inside the well is pulled up with the help of carrier which is mounted inside at 5 feet distance. The automatic action is carried out with the help of DC motor. In order to avoid injuries to the kid, soft sponge material is mounted on the surface and also inside the carrier. A bulb is placed inside the carrier so that the child will be in light until he is automatically pulled up in no time. Few soft toys will be placed inside the carrier so see that the child forgets that he was in danger. Kids are the future builders of the nation; hence accidents faced by them should be immediately handled to save their lives.

Keywords— Alerts, Bore-Well, Carrier, Danger, DC Motor, Sensor.

I. Introduction

With the increasing demand and growth in the Internet of Things (IoT) automated network system, the IoT models are getting complicated day by day [1]. In India, many bore wells are being drilled every day either for water, gas, petroleum or for other resources. Due to unadequate results of not obtaining what they intended to get and also for few other reasons, 100 percent safety measures are not espoused and the bore-wells are left open most of the times after completing their work. Due to this many of the kids are missing and losing their lives while playing as they are unable to notice the danger in front of them. Many deaths of children have been reported in the country since September 2009 [2]. Installation of the Safety Rescue System at the respective bore-well will help to save the life from danger and deaths. The text message will be sent to the main persons in that area, police station, fire station and nearby hospital and 108 ambulance so that they will be informed about the incidents or accidents happened at the bore-well and hence will be able to take precautions or immediate action to save the life.

IT also helps in creating awareness among people [3] and also sees that no more incidences happen nearby the vicinity of the bore-well. Along with this when an object, a child or any other small creatures slips into the bore-well an alarm gets activated and starts ringing until someone comes and stops that. The system also consists of a carrier mounted at a depth of 8 feet to pull the child or object up from bore-well. As soon as the child falls into the bore well, sensor identifies that someone fell into bore well, it automatically activates the motor attached to the system and pulls up the carrier that is kept at the distance of 8 feet. In order to save the child from body injuries soft and sponge like material is placed on the edges and bottom of the carrier. To divert the mindset of the child getting frightened few soft toys are placed at the bottom of the carrier so that he may spend with those toys for some time. By using IoT we can easily increase the responsiveness of authorities to many issues, to provide awareness and involves the citizens in public matters [4]. Now a day's robots are designed [5-8] to help the human operators in the rescue mission. These robots are very expensive and not guaranteed in saving the lives of kids as we cannot predict at what depth the kid is inside the bore well. In the proposed system, there is no chance of going deeper than 8 feet as the carrier is mounted at that distance. This system is also very inexpensive when compared to other rescue systems and would definitely save the precious lives of kids who fell into bore wells.

II. Motivation

In India for past few years, there have been several accidents of children falling into abandoned bore-wells that are left uncovered.

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KNMF

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International Journal of Recent Technology and Engineering

Volume 8, Issue 1, 2019, Pages 3272-3280

Text mining with hadoop:Enforcement of document clustering using non-negative matrix factorization KNMF(Article)

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Abstract

Big data is recognized as information coming from many sources with an innovative analysis of information. The data in documents are mostly unstructured data such as text processing documents, audio, webpage, log results, etc. Problem Statement: To Order these files manually in folders, it is essential to know the entire contents of the files and the name of the files in order to process files, so that certain files are aligned as a lot. Another characteristic of this information is that it is prone to continuous change, hence clustering is required. Existing approach: uses Latent Semantic Indexing(LSI), Single value decomposition for unstructured document which was quickly filtered and viewed, but it is much harder to comprehend for computer machines. Proposed approach: A prototype is prepared by deducting redundancy structures to organize the data by similarity, NMF's updated rules along with k-means are proposed in this paper which is used to find the top terms in a respective cluster. For the purposes of exploration, a new data set called Newsgroup20 is considered. To accomplish this, preprocessing steps like Documents indexing, removal of stop words, Stemming. In specific, the words of the text document must be identified for the extraction of key features. The actual work was distributed in parallel with all documents in this project here, Apache Hadoop Map reduce was used for parallel programming. © BEIESP.

SciVal Topic Prominence ⓘ

Topic: Word Processing | Term Weighting | Reuters

Prominence percentile: 94.840 ⓘ

Author keywords

ISSN: 22773878

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Original language: English

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Publisher: Blue Eyes Intelligence Engineering and Sciences

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Krishnaraj, N. , Elhoseny, M. , Lydia, E.L.

An efficient radix trie-based semantic visual indexing model for large-scale image retrieval in cloud environment

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Document details - Performance investigation of deep cryogenically treated and tempered carbide inserts in turning of Inconel 718

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Defence S and T Technical Bulletin

Volume 12, Issue 2, 2019, Pages 202-217

Performance investigation of deep cryogenically treated and tempered carbide inserts in turning of Inconel 718(Article)

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Abstract

While nickel based alloys possess great chemical attraction and very low thermal conductivity, their machining is very complex. Shorter tool life with high wear is quite obvious during turning of these alloys, due to excessive friction and temperature. With the intention of increasing tool life, cryogenic treatment followed by tempering was carried out on multilayer coated inserts. The treated and tempered inserts were compared with the untreated ones for dry turning of Inconel 718 alloy. The outcome revealed that the tempered inserts outperformed the untreated and treated ones while investigating tool wear and cutting forces. In addition, the tempered inserts exhibited higher scratch resistance and lower chip tool contact distance. © 2019, Science and Technology Research Institute for Defence.

SciVal Topic Prominence ①

Topic: Surface Roughness | Carbide Tools | Inconel (Trademark)

Prominence percentile: 98.812

Author keywords

Chemical vapour deposition Cryogenic treatment Dry turning Inconel 718 Nickel based alloy

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Publisher: Science and Technology Research Institute for Defence

Allu, V.P.; Department of Mechanical Engineering, Jawaharlal Nehru Technological University, Kakinada (JNTUK), India;

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Vignan's Institute of Engineering for Women
K.J. Peta, VSEZ (P.O.),
Visakhapatnam-49.

Modelling and statistical analysis of surface roughness by Taguchi and RSM techniques in hard turning of AISI 52100 steel with multilayer coated carbide insert

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Abstract: The statistical data of surface roughness (R_a , R_z) associated with the machining parameters (cutting speed, tool nose radius, depth of cut and feed) during turning of AISI 52100 steel using multilayer coated carbide inserts was experimentally modelled in this study. Analysis of variance (ANOVA) was employed to ascertain the significance of the cutting parameters whereas response surface methodology (RSM) depending on Taguchi design of experiments was employed to optimise the factors influencing surface roughness. The models established for approximation of R_a and R_z were 91.02% and 92.42% reliable. The most influencing parameter for R_a was tool nose radius followed by feed with contribution of 33.83% and 32.50% respectively, while the contribution of tool nose radius and feed rate for R_z was 39.21% and 33.46%. The optimum combination obtained through multi-response optimisation for minimum roughness was 70 m/min cutting speed, 0.05mm/rev feed, 0.1mm depth of cut and nose radius of 1.2 mm.

Keywords: response surface methodology; RSM; variance analysis; analysis of variance; ANOVA; AISI 52100; multilayer coated carbide; surface roughness



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An experimental investigation of control parameters in five-axis hybrid parallel kinematic machine in milling of aluminium 6061-T3

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Abstract: Surface roughness is an important factor in predicting performance of any machining operation. The experiment has been performed in milling a V-shaped pocket on aluminium 6061-T3 by Exechon parallel kinematic machine using carbide tool. Three different segmented surfaces are selected on V-block and the effect of control parameters were investigated over it. In this research, Taguchi method is used to identify the optimal combination of spindle speed, feed, and depth of cut. To analyse the effect of the control parameters for fine surface finish, Taguchi L9 orthogonal array, signal-to-noise (S/N) ratio and analysis of variance (ANOVA) are employed. Control parameters such as high spindle speed, low feed rate and low depth of cut plays a decisive role in the result of surface roughness. Also, the obtained results from PKM were compared to that of CNC machining, and the surface topologies were examined under optical and scanning electron microscope.

Keywords: Exechon HPKM XT 700S; surface roughness; Taguchi method; S/N ratio; ANOVA.

Reference to this paper should be made as follows: Suryam, L.V. and Balakrishna, B. (2019) 'An experimental investigation of control parameters in five-axis hybrid parallel kinematic machine in milling of aluminium 6061-T3', *Int. J. Machining and Machinability of Materials*, Vol. 21, No. 4, pp.264-278.

Biographical notes: L.V. Suryam has nine years of teaching experience in the field of Mechanical Engineering. Currently, he is working as an Assistant Professor in Vignan's Institute of Engineering for Women, Visakhapatnam, Andhra Pradesh. He is also a Research Scholar in the Department of Mechanical Engineering, JNTUK, Kakinada. His area of research interest includes parallel kinematic machines, robotics, CAD/CAM and machining and manufacturing technology.



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Document details - Effect of MQL on roughness, white layer and microhardness in hard turning of AISI 52100

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Emerging Materials Research

Volume 8, Issue 1, 2019

Effect of MQL on roughness, white layer and microhardness in hard turning of AISI 52100(Review)

Jee, A.V., Dumpala, L., Ramakrishna, S.

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Abstract

The influence of turning parameters on the surface integrity of the workpiece in hard turning of AISI 52100 steel, using minimum quantity lubrication, was investigated in this work. The cutting parameters considered were cutting speed, feed, depth of cut and tool nose radius, at three levels each. Response surface methodology was employed to study the influence of factors on surface roughness, microhardness, topography, white layer thickness and elemental composition. From model analysis, the microhardness and surface roughness were best predicted by quadratic regression models, whereas white layer thickness was best evaluated by a linear model. The variance analysis revealed that surface roughness was significantly affected by nose radius, 33.83%, followed by feed, 32.5%. It was observed that surface defects were reduced with an increase in cutting speed. Microhardness was majorly affected by feed, 36.64%, followed by nose radius, 32.88%. The white layer thickness ranged from 4.3 to 15.9 mm for all experiments. White layer thickness was significantly influenced by nose radius, 82.24%; cutting speed, 9.78%; and feed, 1.23%. Energy-dispersive-X-ray spectroscopy analysis of the machined workpiece at a cutting speed of 150 m/min validated that oxidation was instigated and the weight percent of carbon was augmented in the base metal. © 2019 EDP Sciences. All rights reserved.

SciVal Topic Prominence

Topic: Surface Roughness | Carbide Tools | Inconel (Trademark)

Prominence percentile: 98.812

Author keywords

Mathematical modelling Scanning electron microscopy Surface roughness

Indexed keywords

Engineering controlled terms:

Energy dispersive spectroscopy Mathematical models Metal cutting Microhardness
Regression analysis Scanning electron microscopy Surface defects Topography

Engineering uncontrolled terms

Cutting parameters Elemental compositions Energy dispersive x-ray spectroscopy analysis
Minimum quantity lubrication Quadratic regression Response surface methodology
Variance analysis White layer thickness

Engineering main heading:

Surface roughness

Cited by 3 documents

Liu, M. , Li, C. , Zhang, Y.

Cryogenic minimum quantity lubrication machining: from mechanism to application

(2021) *Frontiers of Mechanical Engineering*

Allu, V.P. , Raju, D.L. , Ramakrishna, S.

Performance analysis of cryogenically treated plus tempered carbide inserts in turning of Inconel 718 using cryogenic minimum quantity lubrication cooling technique

(2019) *Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology*

Allu, V.P. , Dumpala, L.R. , Shinagam, R.

Performance investigation of deep cryogenically treated and tempered carbide inserts in turning of Inconel 718

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Document details - Effect of machining parameters over surface roughness in contour milling of aluminium 2024-T351 using 5-axis parallel kinematic machine

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International Journal of Agile Systems and Management

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Effect of machining parameters over surface roughness in contour milling of aluminium 2024-T351 using 5-axis parallel kinematic machine(Article)

Suryam, L.V., Balakrishna, B.

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Abstract

Surface roughness is reduced by optimising the machining parameters. This research analyses the effect of machining parameters on surface quality of aluminium 2024 T351 in milling of semi-circular pocket with carbide tool on 5-axis hybrid parallel kinematic machine (HPKM). Three different segmented surfaces were selected on semi-circular pocket and investigated the influence of machining parameters. The selected parameters are spindle speed, feed rate and depth of cut. Investigation of this study results in the optimum parameters that could produce good surface finish. The effect of these cutting parameters is evaluated using L9 Taguchi orthogonal array, s/n ratio, analysis of variance (ANOVA). Based on the result analysis, good surface finish can be obtained at high cutting speed, low feed rate, and low depth of cut. Also, the maximum influence of feed rate among the selected surface segments was ascertained. Copyright © 2019 Inderscience Enterprises Ltd.

SciVal Topic Prominence

Topic: Surface Roughness | Carbide Tools | Inconel (Trademark)

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Author keywords

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Contour milling

S/n ratio

Surface roughness

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