



KDKCE'S

स्फूर्ति

**XIV National Conference on
Emerging Trends in Engineering**

16th March 2018



Organized By

K. D. K. College of Engineering

Great Nag Road, Nandanvan
Nagpur – 440 009

Coordinated by:

Department of Mechanical Engineering



KDKCE'S spark

XIV National Conference on
Emerging Trends in Engineering

16th March 2018



Organized By
**K. D. K. College of
Engineering**
Great Nag Road, Nandanvan
Nagpur - 440 009

Coordinated by:
**Department of Mechanical
Engineering**

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- Dr. A. A. Jaiswal, HOD, Dept. of CT.
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- Dr. P. D. Khandait, HOD, Dept. of ETRX Engg.
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CO-CONVENER

Prof. V. N. Muphalik, Mech. Engg. Dept., -9764444505

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- Prof. B. D. Sarode - Mech. Engg. Dept.
- Mrs. P. S. Rautive - Civil Engg. Dept.
- Mr. A. P. Nandekar - C.T. Engg. Dept.
- Mr. V. N. Mahawadwar - ETRX Engg. Dept.
- Prof. P. R. Gupthay - Mech. Engg. Dept.

STUDENT CO-ORDINATORS

- Mr. Sumzo Chakrabarty - 8976463367
- Mr. Pawan Kumar Bahugale - 7875114095
- Mr. Bhavansh Bhat - 7387211593
- Mr. Aditya Mohanty - 9880892312

Contact Email: spark2018@kdkce.edu.in

K. D. K. COLLEGE OF ENGINEERING AT A GLANCE

Karmaveer Dadasaheb Kannamwar College of Engineering (KDKCE) estd. in 1984, is affiliated to Nagpur University, approved by the Director of Technical Education, Mumbai and All India Council for Technical Education (AICTE), New Delhi offering courses in: Mechanical Engineering, Electrical Engineering, Civil Engineering, Computer Technology, Information Technology & Electronics Engineering, Mechanical Engineering, Electrical Engineering & Civil Engineering Programmes of the Institute were accredited by the National Board of Accreditation, New Delhi. College is awarded Grade 'A' by DTE Mumbai and accredited by Institute of Engineers (I), Kolkata.

ABOUT NAGPUR

Nagpur is the second capital of Maharashtra famous for oranges and also known as the Orange city and city of historical status. Situated in the center of country "Zero Mile" is located in Nagpur. The largest industrial estate in Asia of approx 6,000 hectares is being developed at Butibori, close to Nagpur. The Nagpur airport has been upgraded as an international Cargo Hub. Presently Nagpur is Growth Engine City.

ELIGIBILITY

Diploma Engineering, Undergraduate (BE) and Post Graduate (ME, M. Tech, MBA) Ph.D. Scholars. Students of Engineering Colleges, are eligible to Participate.

REGISTRATION

Registration Fee Rs. 300/- Per Participant (Certificate will be awarded to Registered participants only)

PAYMENT MODE

Cash / DD /Cheque in favor of "Principal, KDKCE, Nagpur", payable at Nagpur.

For online payment use following account details

Bank Name : Tirupati Urban Co-Operative Bank Ltd., Nagpur
 Address: KDKCE, Nagpur
 Account No. : 009002300000642
 IFSC Code : HDFC0CTUB09
 MICR Code : 4403444009

TOPICS FOR PAPER PRESENTATION

Area 1) Mechanical Engineering

- Finite Element Analysis
- New Trends in Automobile
- Mechanics & Nano Technology in Mech. Engg
- Thermal Engineering
- Non-Conventional Energy System
- New Trends in Manufacturing
- CAD / CAM / CAE & Design
- Robotics
- Six Sigma/Lean Manufacturing
- Refrigeration, Air Conditioning & Cryogenics
- Agriculture Machinery & Food Processing Machines
- Rural Technologies

Area 2) Electrical Engineering

- Renewable Energy Technology.
- Energy Audit and Management.
- Drives, Control & Automation.
- Power Quality Monitoring & Measurement.
- FACTS and it's Application
- Recent Trends in Electrical Engineering.

Area 3) Civil Engineering

- Environmental Engineering
- Hydraulics Engineering
- Geo-Technical Engineering
- Earth Quake Resistant Structure
- Computer Application in Civil Engineering
- Smart Structure
- GIS
- Rehabilitation of Structures

Area 4) Electronics Engineering

- CMOS and VLSI
- Analog Electronics (Applications)
- Biometric / Bio-informatics
- Wireless Communications
- DSP and DIP
- Advance Sensors
- Fuzzy Logic & Neural Network

Area 5) Computer and Information Tech.

- Virtualization Techniques
- Cloud Computing
- Artificial Intelligence
- Image Processing and Computer Vision
- Image Forensics
- Pattern Analysis & Recognition
- Data Mining and Warehousing
- Wireless Communications
- Real Time Operating Systems
- Internet of Things
- Cyber Security

Area 6) General Science & Humanities

- Green Chemistry
- Energy Efficient Homes
- Fuel Cell Technology
- Nanomaterials
- Engineering Materials & their Scope

REGISTRATION FORM



XIV National Conference on
Emerging Trends in Engineering

Name : _____
 Branch : _____
 College/ Institution : _____
 Details : _____
 Address : _____
 Cell No. : _____
 E-mail : _____
 Payment Details : _____
 DD No./ College Receipt : _____
 No./Online Payment No. : _____
 Bank Name : _____
 Date : _____
 Signature of Participant : _____

FORWARDING CERTIFICATE

The applicant is hereby recommended & will be permitted to participate in the Conference.

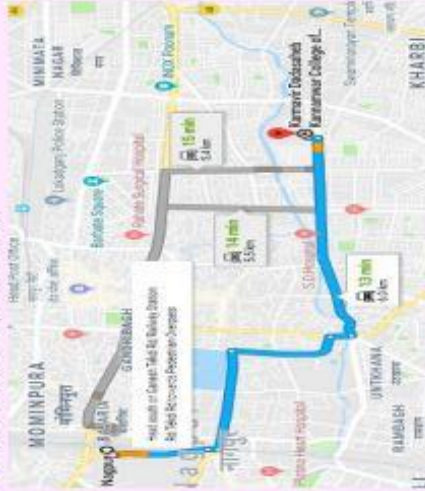
Signature of Authority : _____
 (Seal and sign of Forwarding Authority)

Area 7) M.B.A.

- Indian Financial Sector - Reforms, Regulations & Innovations
- Financial Markets in India : Issues & Developments
- Financial Crisis : Causes, Impacts, Solutions
- Technology Based - Entrepreneurship
- Impact of Demonetisation
- Management Education - Issues, Challenges & Opportunities

LOCATION

The College is conventionally situated in the heart of city at Nandanwan layout, which is close to State Transport Bus Stand (about 4 Km) and Nagpur Railway Station (about 5 km).



IMPORTANT DATES

Last date of Application - **10/03/2018**
 Date of confirmation - **11/03/2018**
 Contact Mail: spark2018@kdkce.edu.in

ADDRESS FOR CORRESPONDENCE:

Prof. V. N. Mujbaile
Co-Convener,
KDK College of Engineering,
Nandanwan, Nagpur - 440 009
Cell No. :- 9764444505
Email ID : mujbailevn@gmail.com

K. D. K. COLLEGE OF ENGINEERING, NAGPUR



SPARKS

XIV National Conference on Emerging Technology Trends in Engineering

ATTRACTIVE PRIZES

PAPER PRESENTATION

Entry Fee Per Author - ₹ 300

16th March 2018

Important Dates

Last Date of Paper Submission
10th March, '18

Intimation of Paper Selection
11th March, '18

For any queries mail to : spark2018@kdkce.edu.in
OR visit : www.kdkce.edu.in

*Certificates will be issued to all the registered participants.

Dr. D. P. Singh
Principal

Dr. A. M. Badar
Vice-Principal

Dr. C. C. Handa
Convener

Prof. V. N. Mujbaile
Co-Convener

Area 1) Mechanical Engineering

- Finite Element Analysis
- New Trends in Automobile
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- Thermal Engineering
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- Energy Audit and Management.
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- Hydraulics Engineering
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- Virtualization Techniques
- Cloud Computing
- Artificial Intelligence
- Image Processing and Computer Vision
- Image Forensics
- Pattern Analysis & Recognition
- Data Mining and Warehousing
- Wireless Communications
- Real Time Operating Systems
- Internet of Things
- Cyber Security

Area 6) General Science & Humanities

- Green Chemistry
- Energy Efficient Homes
- Fuel Cell Technology
- Nanomaterials
- Engineering Materials & their Scope

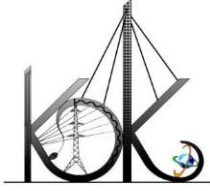
Area 7) M.B.A.

- Indian Financial Sector - Reforms, Regulations & Innovations
- Financial Markets in India :
- Issues & Developments
- Financial Crisis : Causes, Impacts, Solutions
- Technology Based - Entrepreneurship
- Impact of Demonetisation
- Management Education - Issues, Challenges & Opportunities

For Details Contact:-

Prof. V. N. Mujbaile
(Co-Convener)
Mo. No.- 9764444505
Prof. A. S. Hande
Mo. No.- 7276733910

TOPICS FOR PAPER PRESENTATION



K. D.K. College of Engineering, Nagpur

Department of Mechanical Engineering

SPARK 2018

SECRETARY MESSAGE

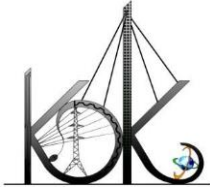


I am happy and it is a matter of immense pride for our institution to organize of SPARK-2018 – XIV National Conference on Emerging Technology Trends in Engineering. SPARK-18 is an Interdisciplinary National level paper presentation event encompassing the themes from various Mechanical, Computers, Electrical, Civil and Electronics Engineering as well as General Science and Management for student, on 16th March 2018(Friday).

This is XIV successive National conference that is being organized by the institute and co-ordinated by Mechanical Engineering Department. I am sure about the conference that it will serve an effective platform for budding engineers to share their ideas and research.

I have full support to such type of event, which eventually make the society technology aware and with best wishes for grant success of the event.

Hon. Shri. Rajendraji B. Mulak
(Hon. Secretary, B.C.Y.R.C., Nagpur & Ex-Minister
Govt. of Maharashtra)



K. D.K. College of Engineering, Nagpur
Department of Mechanical Engineering

SPARK 2018

TREASURER MESSAGE

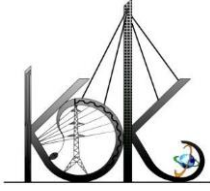


It feels proud to know here that the Department of Mechanical Engineering co-ordinates SPARK-2018 – XIV National Conference on Emerging Technology Trends in Engineering. SPARK-18, an Interdisciplinary National level paper presentation event encompassing the themes from various Mechanical, Computers, Electrical, Civil and Electronics Engineering as well as General Science and Management, on 16th March 2018(Friday).

I am confident that this conference will give platform to the students showcase from the various field of engineering and their knowledge discuss ideas and research.

I extend my wishes for the success for the conference.

Hon. Shri. Yashraj R. Mulak
(Treasurer, B.C.Y.R.C., Nagpur)



K. D.K. College of Engineering, Nagpur
Department of Mechanical Engineering

SPARK 2018

PRINCIPAL MESSAGE



I am, indeed, proud and privileged to organize SPARK-2018 – XIV National Conference on Emerging Technology Trends in Engineering. SPARK-18 is an Interdisciplinary National level paper presentation event encompassing the themes from various Mechanical, Computers, Electrical, Civil and Electronics Engineering as well as General Science and Management, on 16th March 2018(Friday)at KDKCE Nagpur. It is an excellent platform for budding Engineers to explore their research talents and innovative ideas in Engineering & Technology.

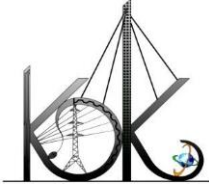
I take this opportunity to brief about KDKCE. The Karmavir Dadasaheb Kannamwar College of Engineering, Nagpur, established in 1984 by Backward Class Youth Relief Committee (BCYRC), is one of the leading engineering colleges in Maharashtra State, approved by AICTE, New Delhi and Director of Technical Education, Maharashtra and affiliated to Rashtrant Tukadoji Maharaj Nagpur University, Nagpur. Government of Maharashtra has conferred 'A' Grade on the basis of excellence & adequate infrastructure as well as academic achievements of students and faculty. The college runs Six Undergraduate courses and Three Postgraduate courses in Civil Engineering, Mechanical Engineering, and Master of Business Administration with total Intake capacity of 726. The Vision of the college is “Service to the Society through Quality Technical Education”. The orientation of academic and administration in the college is such that the stake holders are nurtured to achieve professional competency to help build their career and society at large.

With the whole-hearted support from the management of KDKCE, the college is taking stride in organizing such event to provide platform to the UG/PG Students. This conference will also see students exchanging their knowledge and findings on Emerging Technology Trends in the various field of engineering.

I congratulate Mechanical Engineering Department for taking efforts in the organization of SPARK-18 and express my sincere thanks to guest, experts, keynote speakers, and judges for their valuable support, and authors of papers, delegates, participants for their valuable contributions. I also extend my thanks to the management of INDIAN SOCIETY FOR TECHNICAL EDUCATION, New Delhi, for joining their hands in the organization of SPARK-18.

I wish every success to the entire team of SPARK-18.

Dr. D. P. Singh
Principal, KDKCE, Nagpur.



K. D.K. College of Engineering, Nagpur
Department of Mechanical Engineering
SPARK 2018

VICE PRINCIPAL MESSAGE



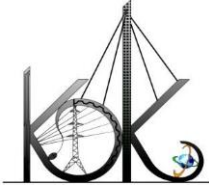
It gives me immense pleasure to announce the organization of SPARK-2018 – XIV National Conference on Emerging Technology Trends in Engineering. SPARK-18 is an Interdisciplinary National level paper presentation event encompassing the themes from various Mechanical, Computers, Electrical, Civil and Electronics Engineering as well as General Science and Management, on 16th March 2018(Friday) at KDKCE Nagpur.

This conference also aims at making the students, academicians and researchers aware of writing technical paper and adopting recent techniques for presentation.

India is going through the transitional phase from the conventional growth to the smart growth. It is an excellent platform for budding technocrats to explore their research talents and innovative ideas in various field of Engineering & Technology viz.UG/PG Students, Academician, Researcher, etc, at one platform to exchange their innovative realms in Engineering technology.

I wish every success to entire team of SPARK-2018 – XIV National Conference on Emerging Technology Trends in Engineering, for all their efforts in organizing the conference and making it a grand success. I express my gratitude to Chairman, Secretary, and Treasurer of our KDK College for encouraging in the organization of this conference. I also acknowledge the cooperation from the management of INDIAN SOCIETY FOR TECHNICAL EDUCATION, New Delhi.

Dr. A. M. Badar
Vice Principal, KDKCE, Nagpur.



K. D.K. College of Engineering, Nagpur
Department of Mechanical Engineering

SPARK 2018

CONVENER MESSAGE



It is a matter of utmost pride and privilege that, K.D.K. College of Engineering, Nagpur is organizing of SPARK-2018 – XIV National Conference on Emerging Technology Trends in Engineering and Department of Mechanical Engineering is Co-ordinator for this event. SPARK-18 is an Interdisciplinary National level paper presentation event encompassing the themes from various Mechanical, Computers, Electrical, Civil and Electronics Engineering as well as General Science and Management. The event is scheduled on 16th March 2018(Friday) and is sponsored by ISTE, New Delhi.

It is an excellent platform for budding Engineers to explore their research talents and innovative ideas in Engineering & Technology. This conference also aims at making the students, academicians and researchers aware of writing technical paper and adopting recent techniques for presentation.

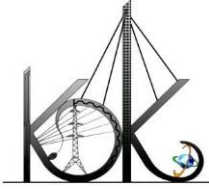
The Conference proceeding in CD form contains the Technical papers from Research scholars, students presented in the conference, the conference is a good opportunity for the participants coming from different universities of India to present and discuss topics in their respective research areas. Various technical sessions of SPARK-2018 – XIV National Conference on Emerging Technology Trends in Engineering reflects different ideas and methods of theme in a lively and accessible way.

I would like to thank all the participants for their contributions to the conference proceedings. Many thanks are due to all the sponsors, the team Spark for their support and hospitality, which allowed all the participants to feel more at home.

My special thanks go to my colleagues, committee members for their untiring contributions for the conference and preparing this proceeding volume.

It is our pleasant duty to acknowledge the support and co-operation from the office bearers of INDIAN SOCIETY FOR TECHNICAL EDUCATION, New Delhi, the Management of KDKCE for the organization of this Conference, specially Hon. Rajendraj Mulak, Secretary, K. D. K. C. E.

Dr. C. C. Handa,
Professor & Head,
Dept. of Mech. Engg., KDKCE
Convener, SPARK 2018



K. D.K. College of Engineering, Nagpur

Department of Mechanical Engineering

SPARK 2018

Co-CONVENER MESSAGE



Greeting to all

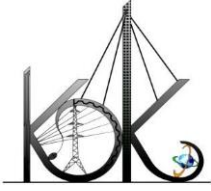
The Department of K. D. K. College of Engineering is immensely pleased to organize a XIV National Conference on Emerging Technology Trends in Engineering on 16th March 2018. The college successfully organize XIV - SPARK-2018 with the support and co-operation from the office bearers of INDIAN SOCIETY FOR TECHNICAL EDUCATION, New Delhi.

The idea behind the organization of SPARK-2018 is to create the atmosphere of research in the various fields of Engineering and students to develop innovative research oriented attitude. With the patronage from Honorable Shri. Rajendra Mulak and able guidance from Principal, Dr. D. P. Singh, Vice-Principal, Dr. A. M. Badar and with the guidance of Dr. C. C. Handa, this proceeding of SPARK-2018 – XIV National Conference on Emerging Technology Trends in Engineering is presented here.

With the full support and co-operation of dedicated faculty of Mechanical Engineering Department and other. I am sure of success of this event.

With my best wishes and constant support.

V. N. Mujbaile,
Asst. Professor,
Mech. Engg. Deptt., KDKCE
Co-Convener, SPARK 2018



K. D.K. College of Engineering, Nagpur
Department of Mechanical Engineering

SPARK 2018

PREFACE

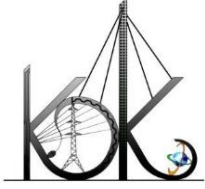
The “*SPARK-2018 – XIV National Conference on Emerging Technology Trends in Engineering*” is being organized by KDK College of Engineering (KDKCE), Nagpur in association with *ISTE New Delhi on 16th March 2018*.

KDK College of Engineering has a sprawling student –friendly campus with modern infrastructure and facilities which complements the sanctity and serenity of the Metropolis city of Nagpur in Maharashtra.

The National Conference in Emerging Technology Trends in Engineering-SPARK 2018 is a notable event of this region which brings out the Research talent of the students in the form of technical paper presentation. Large number of students from different colleges across the country participate in it. Students from different parts of India get a common platform to show and present their research talent through paper presentation in front of jury of judges thereby gaining confidence.

Papers are reviewed by senior faculty and are categorized. During the paper presentation(parallel sessions) jury of judges guide the student and selected papers are recommended for the award of prizes.

Proceedings of all papers are given to students in the form of CD which is a part of conference kit.



K. D.K. College of Engineering, Nagpur

Department of Mechanical Engineering

SPARK 2018

NATIONAL ADVISORY COMMITTEE

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| 2. Dr. Sandip M. Salodkar | Vice Chancellor, A.P.J Abdul Kalam University, Indore |

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| 2. Dr. Sachin Borse | Asso. Prof. Shagra University, Kingdom of Saudi Arabia |
| 3. Dr. A.K. Dharpe | Prof. IIT, Delhi |
| 4. Dr. V.G. Arajpure | Principal, Godawari C.O.E., Jalgaon |
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COLLEGE ADVISORY COMMITTEE

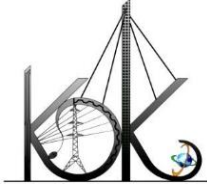
- | | |
|---------------------------|---------------------------------------|
| 1. Dr. D.P. Singh | Principal, K.D.K.C.E., Nagpur |
| 2. Dr. A.M. Badar | Vice Principal, K.D.K.C.E., Nagpur |
| 3. Dr. G.H. Agrawal | Dean SDC, K.D.K.C.E., Nagpur |
| 4. Dr. Valsson Varghese | HOD, Dept. of Civil Engg. |
| 5. Dr. S.S. Ambekar | HOD, Dept. of Electrical Engg. |
| 6. Prof. G.D. Randive | HOD, Dept. of Gen. Sci. & Humanities. |
| 7. Dr. A.A. Jaiswal | HOD, Dept. of Computer Technology |
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| 9. Dr. P.D. Khandait | HOD, Dept. of ETRX. Engg. |
| 10. Dr. S. Randhir | HOD, Dept. of MBA |

CONVENER

Dr.C.C.Handa
Prof. & Head
Dept. of Mech. Engg.

CO-CONVENER

Prof. V.N. Mujbaile
Mech. Engg. Dept.



K. D.K. College of Engineering, Nagpur

Department of Mechanical Engineering

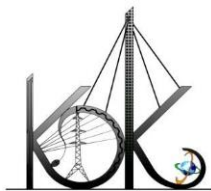
SPARK 2018

ORGANIZING COMMITTEE

- | | |
|--------------------------|--------------------|
| 1. Dr. A. V. Vanalkar | Mech. Engg. Deptt. |
| 2. Dr. S. R. Ikhar | Mech. Engg. Deptt. |
| 3. Mrs. P. S. Randive | Civil Engg. Deptt. |
| 4. Mrs. S. R. Gawande | Elec. Engg. Deptt. |
| 5. Mr. A. P. Nachankar | C.T. Engg. Deptt. |
| 6. Mr. H. V. Gorewar | I.T. EnggDeptt. |
| 7. Mr. V. N. Mahawadiwar | ETRX Engg. Deptt. |
| 8. Prof. P. R. Gajbhiye | Mech. Engg. Deptt. |
| 9. Prof. B. D. Sarode | Mech. Engg. Deptt. |

STUDENT CO-ORDINATORS

1. Mr. Saurabh Chakrabarty
2. Mr. Pawankumar Rahangdale
3. Mr. Bhuvnesh Balki
4. Mr. Aditya Mohanty



DEPARTMENTAL ORGANISING COMMITTEE

Inauguration & Valedictory Function

Prof. P.R.Gajbhiye - Incharge
Prof. Miss. M.S.Gondane-Member

Prof. Miss. S.G.Bawane-Member
Prof.S.W.Wankhede-Member

Correspondence/ Registration Committee

Prof. Miss. S.G.Bawane- Incharge
Prof. V.G.Choudhari-Member
Prof.P.R.Tete-Member

Prof. B.D.Sarode-Member
Prof. M.W.Nagardhane-Member

Accommodation & Transportation Committee

Prof. M.S.Shelke- Incharge
Prof.S.D.Bawane-Member

Prof. K.D.Gadgil-Member

Refreshment Committee

Prof. V.D.Dhopte- Incharge
Prof. A. K.Kapse-Member

Prof. S.D.Thakre-Member

Proceedings Committee

Dr.S.R.Ikhar- Incharge
Prof. S.P.Bhorkar-Member
Prof.K.M.Kapgate-Member

Dr. V.B.Vaidya-Member
Prof.M.D.Funde-Member

Certificate & Prize Committee

Prof. A.P.Ninawe- Incharge
Prof. P.G.Jain-Member
Prof.A.A.Ozarkar-Member

Prof. P.M.Zode-Member
Prof.D.B.Kawadkar-Member

Media & Publicity Committee

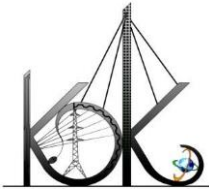
Prof. M. S. Shelke- Incharge
Prof. N.S.Shrikhande-Member

Prof. A.S.Hande- Member
Prof.D.N.Kadu-Member

Student co-ordinators

Mr. Saurav Chakrabarty
Mr. Bhuvanesh Balki

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Mr. Aditya Mohanty



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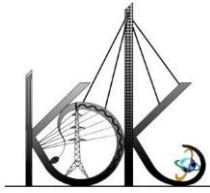
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ACKNOWLEDGEMENT

With profound feeling of immense gratitude and affection we, Dr.C. C. Handa, Convenor and V.N.Mujbaile Co-Convenor XIV - National Level Conference on Emerging Technology Trend in Engineering Spark 2018 XIV National Conference On Emerging Technology Trends In Engineering, would like to thank our Hon'ble Secretary, Shri. Rajendraji Mulak, Ex-Minister, M. S. and Hon'ble Treasurer, BCYRC, Shri. Yashraoji Mulak for his continues support motivation, enthusiasm and guidance for the successful event.

We would grateful to National Advisory Committee, Technical Advisory Committee, College Advisory Committee, Organizing Committee for their work together in getting things streamlined.

We expressed my admiration to Principal Dr. D. P. Singh and Vice principal Dr. A. M. Badar for their constant motivation and providing necessary facilities and support for the event.

We are very much thankful to our judges and reviewers for providing technical support.

We are certain that this venture will be a successful one with the kind of motivated, inspired and innovative faculties of our various engineering department involved in the conference.

My special thanks to the team Mechanical for their untiring work and support for the smooth conduct of SPARK-2018.

Last but not least we thank all who have directly and indirectly help in this conference becoming a great success.

Dr. C. C. Handa

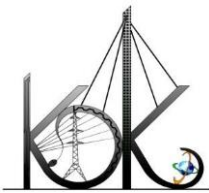
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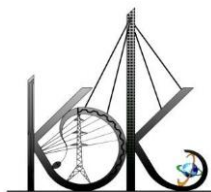
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ME 001**“A REVIEW ON DESIGN AND FABRICATION OF RAW MANGO CUTTING MACHINE”**Monica Nagardhane¹, Rohan Bambolkar²¹Professor, Department Of Mechanical Engineering, KDKCE, Nagpur, 440009, India²Student, Department Of Mechanical Engineering, KDKCE, Nagpur, 440009, India**ABSTRACT:**

Raw mangoes in India are mostly used as pickles and chutneys. Pickles are prepared in almost every Indian house and also commercially and famous within country. In Gujarat, many households scale pickle manufacturers have expanded in to relatively medium and large-scale units. Most of the raw mango pickle industries of Gujarat perform basic operations like, cutting, slicing, peeling and grating, dicing, and handling manually and in unhygienic ways. All these operations are done manually in the industry and also tedious and labor intensive. So, it is very necessary and important to mechanize these operations by developing machines which can reduce the time as well as cost of operation in more hygienic. Slicing and cube cutting is one of the most important steps in processing of raw mango fruits. Mechanical slicing and cube cutting is capable of more precise than manual mango cutting operation. It reduces the operation time and improves the efficiency and accuracy of raw mango slicing and cube cutting. However, only limited work have been done and published, on the development of slicing and cube cutting machines. Therefore, the present study was undertaken to develop an appropriate, efficient slicer and cube cutter for mechanizing the pickle processing industry. Various physical properties namely; size, shape, unit mass, sphericity and bulk density, and engineering properties namely firmness, of freshly harvested mango fruit of cultivar “Rajapuri” were determined.

Keywords:Raw mango slicer, raw mango cube cutter, slicing efficiency, cube cutting efficiency, cost economics of slicing and cube cutting machine

ME 002**ELECTRICALLY OPERATED RAW MANGO CUTTING MACHINE**Monica Nagardhane¹, Tukaram Pikalmunde²¹Professor, Department Of Mechanical Engineering, KDKCE, Nagpur, 440009, India²Student, Department Of Mechanical Engineering, KDKCE, Nagpur, 440009, India**ABSTRACT:**

Raw mangoes in India are mostly used as pickles and chutneys. Pickles are prepared in almost every Indian house and also commercially and famous within country. In Gujarat, many households scale pickle manufacturers have expanded in to relatively medium and large-scale units. Most of the raw mango pickle industries of Gujarat perform basic operations like, cutting, slicing, peeling and grating, dicing, and handling manually and in unhygienic ways. All these operations are done manually in the industry and also tedious and labor intensive. So, it is very necessary and important to mechanize these operations by developing machines which can reduce the time as well as cost of operation in more hygienic. Slicing and cube cutting is one of the most important steps in processing of raw mango fruits. Mechanical slicing and cube cutting is capable of more precise than manual mango cutting operation. It reduces the operation time and improves the efficiency and accuracy of raw mango slicing and cube cutting. However, only limited work have been done and published, on the development of slicing and cube cutting machines.

Therefore, the present study was undertaken to develop an appropriate, efficient slicer and cube cutter for mechanizing the pickle processing industry. Various physical properties namely; size, shape, unit mass, sphericity and bulk density, and engineering properties namely firmness, of freshly harvested mango fruit of cultivar “Rajapuri” were determined.

Keywords: Raw mango slicer, raw mango cube cutter, slicing efficiency, cube cutting efficiency, cost economics of slicing and cube cutting machine

ME 003

REVIEW OF RECENT ADVANCEMENT IN THE INDUCTION FURNACES TECHNOLOGY

Akhilesh Dhopre ,Rohit Shah, Sunit Francis

Guide-Dr.P.G.Mehar

CO Guide-Er.K.D.Gadgil

Karmaveer Dadasaheb Kannamwar College of Engineering , Nagpur, Maharashtra, (India)

ABSTRACT

A furnace is an equipment where ferrous and non ferrous metal are melted, the melted metal has further use in foundry sector as well as for other application as well. An induction furnace is one of the type of furnace which utilizes the principle of Joules law, electromagnetic induction for melting the metal.

There always has been a problem that we have to face because of the large setup of the induction furnace. This paper deals with the recent advancement in the induction furnace, and how the induction furnace advancement can be used locally in India for the domestic work.

ME 004

EFEFCT OF AMBIENT VIBRATION ON BRIDGES – AN APPROACH

Prashil G. Nagartiwar¹, Ankit M. Pandey², Shivam S. Ashtikar³ A.P.Ninawe⁴

^{1,2,3}(Students, Final year, Mechanical Department, KDKCE.) (Guide, Asst .prof, Department Mech Engg.)

ABSTRACT: -

This paper is initiated to study the effect of ambient vibrations on bridge. Changing environmental conditions especially temperature have been observed to be a complicated factor affecting vibration properties such as frequencies mode shapes and damping on bridges. On going researches are carried out based on the vibration based estimation of the bridge structure to evaluate the structural condition and overall integrity. A structural distress, globally leads to decreasing in stiffness and free energy stored in the system or structure. The ambient vibration test describes the dynamic characteristics of bridge by measuring natural frequencies. Vibration testing of bridges can give very useful information based on the behaviour and performance during its service life.

ME 005

STUDY OF THERMOELECTRIC-GENERATORAkshay Malewar¹, Nikhil Chatap², Asst. prof. A. N. Madne³¹Student, ²Student, ³Asst. Prof. Mechanical Department^{1,2,3}KDKCE, Nandanvan, Nagpur, Maharashtra, Indiaakshaymalewar5@gmail.com, nikhilchatap@gmail.com,**ABSTRACT:**

By converting waste heat into electricity through the thermoelectric power of solids without producing greenhouse gas emissions, thermoelectric generators could be an important part of the solution to today's energy challenge. There has been a resurgence in the search for new materials for advanced thermoelectric energy conversion applications. In this paper, we will review recent efforts on improving thermoelectric efficiency. Particularly, several novel proof-of-principle approaches such as phonon disorder in phonon-glass/electron crystals, low dimensionality in nanostructured materials and charge-spin-orbital degeneracy in strongly correlated systems on thermoelectric performance will be discussed.

ME 006

VARIOUS METHODS OF PLASTIC FORMING- A PAST REVIEW PAPERS¹Sumit G. Wankhade, ² Niraj L. Wakulkar, ³ Amit B. Bende^{1,2,3}U.G. student, Department of mechanical engineering K.D.K. college of engineering, Nagpur, Maharashtra.Email: sumitwankhade1919@gmail.com, niraj.wakulkar@gmail.com, bendeamitguruji@gmail.com,**ABSTRACT:**

The vacuum forming is a unique simplified method of fabrication. Vacuum formed products are prevalent in our daily lives. The process involves heating a plastic sheet until soft and then dropping it over mould. A vacuum is used for sucking the air particles from mould for producing the rapid prototype model, to reduce the mould fabrication time. Using prototype for the mould makes it economically feasible to produce low quantities of large part and operate medium size production runs. The sheet is then removed from the mould. In vacuum forming process the Low forming pressures are used, which enable comparatively low cost tooling. Since the process requires only low pressure cups and packaging.

Keywords: vacuum forming, plastic sheet, mould, dies.

ME 007**DESIGN AND FABRICATION OF MULTIPURPOSE AGRICULTURE MACHINE**

Ankit R. Jadhav, Prof. P.R. Gajbhiye

Mechanical Department, Mechanical Department

K.D.K College Of Engineering, K.D.K College Of Engineering,

Nagpur, India, Nagpur, India.

arjadhav3010@gmail.com g_pankaj123@rediffmail.com

ABSTRACT:

India is an agriculture based country in which, 70% of people depends on the outcome of farming. But if we observe that with increase in population the farm gets distributed among the family and because of this, farmer in India held averagely only two acre farm. Also economically, farmers are very poor due to which they are unable to purchase costly equipments hence they use traditional method of farming. So we are thinking that human efforts can be replaced by some advance mechanization which will be suitable for small scale farmer from economical and effort point of view. So we are developing this equipment which will satisfy all this need and to solve labour problem.

In this equipment we used induction motor for driving operation. This machine performs four farming operations (chaff cutting, groundnut decorticator, paddy separator, tool grinder) which is used in small scale farming. By using above attachments one may perform various farming operations in less time and economically.

Keywords: Chaff cutter, Groundnut sheller, Paddy separator, Tool grinder.

ME 008**DEVELOPMENT OF COCONUT TRIMMING MACHINE USING PEDAL POWER**

Prof. Vivek B. Vaidya, Yash P. Pawshakar, Pawan P. There, Sonali A. Lokhande

Mechanical Department

K.D.K. College Of Engineering

ABSTRACT:-

The project was initiated to design a young coconut trimming machine for vendors. The main aim of the project is to make easily available of the machine for vendors which will be simple operated by pedaling the cycle. Since the electrical energy is not available all the time for street vendors or it is impossible to carry battery with them all the time as it is heavy. This trimming machine may provide a boon to the local vendors. Moreover while transporting a large amount of young coconuts, the weight and volume may be the subject of consideration therefore this machine will also aim at making the coconut lighter and will also occupy less space hence makes the product more attractive.

Keywords— Bicycle chain, Pedal power, Sprocket, Trimming mechanisms.

ME 009

TECHNICAL ASPECT OF CRICKET BOWLING MACHINE

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Mechanical Department,
K.D.K. College of engineering,
Nagpur, INDIA.
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ABSTRACT

This paper deals with technical aspect of cricket bowling machine which is consist of a pair of adjacent wheels, each provided with a groove or concave surface formed in the body of an viscous-elastic material. And in this machine two high speed DC motor has been used. These two wheels are mounting over the motors. The whole setup is placed on a tripod, whose height and angle of projection for ball throwing can be manually adjustable. The pulse width modulation is device which varies the speed of the driving wheels of two motor with microcontroller. Pulse width modulation is the process of switching the power to a device on or off at a given frequency.

Keywords- DC-Direct Current, PWM-Pulse Width Modulation, Microcontroller, Cricket, SCR-Silicon controlled rectifier, MOSFETs, IGBTs.

ME 010

DESIGN AND FABRICATION OF ORGANIC WASTE SHREDDING AND MIXING MACHINE

Aakash Kurhekar¹, Ritik Hinge², Subhash Mulpuri³, ; Prof. V. N. Mujbaile⁴, Er. D.N. Kadu⁵,
Student^{1,2,3}; Professor^{4,5}Dept. of Mechanical Engg., K.D.K. College of Engineering, Nagpur, India

ABSTRACT

Organic composting plays a vital parts as being both necessity and an alternative backbone for poor farmers. The conventional method of shredding organic residue is not convenient. In addition getting the required fertilizer is not feasible for all farmers. Being in shredded amount exhilarates the process of composting by the increased surface area for anaerobic degradation which otherwise requires 4 to 3 months for the whole process to occur. the crops residue is been inserted in the cutting chamber which by the cutting action of the multi blade cutter convert them into shredded amount. the machine require less space and less compact as compared to most of the traditional shredding machine being used in farms. This assembly generates shredded organic waste which is really useful or organic farm and organic animal food which is really required for animal according to their health is concern. This complete assembly works on human power so there is no requirement of electricity. This project uses organic material collector assembly. Importance of this paper lies in the very fact that it is green project and helps us to reduce our electricity need too.

Keywords: organic waste, animal food, compost encapsulation, multi blade cutter, mixer, agriculture waste.

ME 011**3D PRINTING TECHNOLOGY AND ITS APPLICATION**Yuvraj Nimje¹, Mayur Dighore², Dr. C.C. Handa³, B. D. Sarode⁴¹Student, ²Student, ³Professor & Head of Mechanical Engineering Department, ⁴Assistant Professor^{1,2,3,4}KDKCE, Nandanvan, Nagpur, Maharashtra, India¹yuvrajnimje@gmail.com, ²mayurvdighore@gmail.com, ³chandrasahanda@rediffmail.com,
⁴bhupeshdsarode@gmail.com**ABSTRACT**

This research paper deals with the technology used in 3D printing in which a three-dimensional object is created by consolidating the material under the control of the computer. The process used in 3D printing is known as additive manufacturing. An object is created in an additive manufacturing process by depositing successive layers of material until the object is created. There are several ways to print in 3D. Some of the additive manufacturing techniques are Stereolithography (SLA), Digital Light Processing (DLP), Fused Deposition Modeling (FDM), Fused Filament Fabrication (FFF), etc. This document also includes 3D printing applications in the medical industry, manufacturing industry, architecture, custom art and design, aerospace and aerospace industry, automotive industry and industrial printing.

Keywords - 3D printing, technology used in 3d printing, SLA, FDM, Application of 3d printer

ME 012**APPLICATION OF QUEUING MODEL ON PETROL PUMP**¹Dr. R. H. Parikh, ²Rakshanda Agashe, ³Sandip Rathod, ⁴Roshan Ramteke¹Professor, ^{2,3,4}Student, (Dept. of Mechanical Engineering, KDKCE, Nagpur)**ABSTRACT**

Queuing theory is the mathematical study waiting line. Queuing problem is an important problem in our life. It is about waiting line to take any kind of service. All situations where there is involvement of customers, there are likely to have queues. Most commonly it is seen in petrol stations. In petrol stations there are long queues which sometimes lead to scarcity of product causing the buyers to wait for long. Standing in line can cause extreme boredom. In this paper, single channel with multiple server models is considered to reduce the waiting time.

Keywords:- Queuing Theory, Queuing Model, Server, Average Waiting Time

ME 013**Design and Fabrication of Loading and Unloading System (Case Study: Two Wheeler)**Ulhas Bansod¹, Hasnain Rizvi², MeghaBarbatkar³^{1, 2, 3} Student, Department of Mechanical Engineering, K.D.K. College of Engineering,
Nagpur, Maharashtra**ABSTRACT: -**

The following paper describes the design as well as analysis of a vehicle lift. Conventionally a scissor lift or jack is used for lifting a vehicle for various purposes, to lift the body to appreciable height, and many other applications also such lifts can be used for various purposes like maintenance and many material handling operations. It can be of mechanical, pneumatic or hydraulic type. The design described in the paper is developed keeping in mind that the lift can be operated by mechanical means by using wire ropes with the help of electric motor. In our case our lift was needed to be designed a portable and also without any pneumatic or hydraulic means. Also such design can make the lift more compact and much suitable for medium scale work.

Keywords:-Elevators, Lifts, Ropes, Drive, Sheave.

ME 014**DESIGN CONSIDERATION FOR 3D PRINTER**Satyam Giradkar¹, Jayesh Jaiswal², Dr. C.C. Handa³, B. D. Sarode⁴¹Student, ²Student, ³Prof.Head.Mechanical Engineering Department, ⁴Assistant Professor^{1,2,3,4}KDKCE, Nandanvan, Nagpur, Maharashtra, India

¹satyamgiradkar5@gmail.com, ²jayeshjjaiswal@gmail.com, ³chandrahashanda@rediffmail.com, ⁴bhupeshdsarode@gmail.com

ABSTRACT

3D printers, device which can convert a digital model to a physical product, are popular among the investors and designer. As the printers become more affordable, 3D printing is moved to being a hands on production device from being a demo technology. These days, engineering students can successfully build physical models of their designs with low-cost 3D printers. This paper focuses on the design and analysis of a 3D printer prototype based on a prusa model. In addition, mechanical devices of 3d printer involving both stationary like columns and dynamic parts like guide shaft, coupling were designed for a comparative study. When the 3d printer performs the printing operation, depending on the load of the extruder holding filament (polylactic acid) in it, how the column and guide shaft will behave and what will be the stresses and forces exerted by them in order to perform the printing operation on the print bed which is of size 300×300×300mm dimensions is discussed in this paper.

Keywords -3D printing, technology used in 3d printing, SLA, FDM, Application of 3d printer

ME 015

FEM ANALYSIS FORDALALCHOWK BRIDGE, NAGPURParag B. Borkar¹, Gaurav M. Kardwar², Sneha Sahare³, Abhinav P. Ninawe⁴^{1,2,3}(Students, Final year, Mechanical Engineering, KDKCE)⁴(Guide, Asst.prof. Department of MechanicalEngg. KDKCE.)

ABSTRACT –

In recent years, FEM has gained a lot more importance in design field because of its accuracy in modelling and more optimized designs which leads to advantages like cost effectiveness and optimum use of resources. The appearance of high speed computers and vibration measuring machines have effectively helped in analyzing the things with the help of real time data in more variety of effects accurately. But due to large costs involved in actual experimental analysis, it is not always the best choice for study. Though extensive studies have been made in this field, high-performance analysis methods are still required for accurate prediction of response of bridges under ambient loads. Therefore, an accurate analytical modelling and numerical solution by FEA gives more advantage.

Keywords-Analytical modelling, Optimized designs

ME 016**EXPERIMENTATION AND ANALYSIS OF HEAT TRANSFER DEVELOPED ON PORTABLE
INDUCTON FURNACE**

Rajat Sawarbandhe, Akash Joshi

Prof. Dr.P.G.Mehar

Assit Prof. K.D.Gadgil

Department Of Mechanical Engineering

K.D.K. College Of Engineering Nagpur (India)

ABSTRACT:-

Now days, the technology has influenced and also elevated by the extent to which it can easily harness and convert the available mineral resources as per requirement. for metal melting process we are using induction furnace , which uses the copper coil as heater to melt non- ferrous metals .This melting process in industries is costly for small operators or foundries as well as they have to buy that in bulk . So, this paper aims to make it first affordable for small operators or foundries, increased in efficiency and also some modification in shape and size of heating chamber of portable induction furnace.

The design of this portable induction furnace is made by the use of CATIA software and also taken into account many important points such as heating mechanism in chamber, furnace efficiency, heat transfer rate, shape and size of crucible and mobility of furnace. By experimenting in the furnace we have found out that it takes approximately around 30-45 minutes for melting of aluminium completely at 660°C about a quantity of 250 gm.

ME 017**FABRICATION AND EXPERIMENTATION OF WASHER MAKING MACHINE**

Yogesh kapoor¹, Rohini Gohate², Gaurav Gawande³, Dr. A. V. Vanalkar⁴

^{1,2,3} Students, B.E, Dept. of Mechanical Engineering, K.D.K. College Of Engineering, Nagpur

⁴ Professor, Dept. of Mechanical Engineering, K.D.K. College Of Engineering, Nagpur-09

ABSTRACT

The aim of this paper is to study the manufacturing process of washer by using Hydraulic Press with the use of hydraulic system. This process will help to speed up the manufacturing of washer, also, making the manufacturing of washer much easier. Design, analysis is also done by using ANSYS Software. Time consumption is less because of Automatic Feeding Mechanism. Hydraulic Press Machine works under continuous impact load. Fabrication and implementation includes: fabrication of frame and components. Thus an attempt has been made to provide the smooth and rapid functioning of feeding mechanism, as well as product manufacturing.

KEYWORDS: Hydraulic operation, Automation, Fabrication, Analysis, Design and development.

ME 018**REVIEW PAPER ON ROTARY TYPE VEGETABLE CLEANER: A LITERATURE SURVEY.**

Ms. Anjali Meshram¹ Dr. S. R. Ikhar²

¹M.Tech.Student ²Associate Professor

^{1,2}Department Of Mechanical Engineering

^{1,2}K.D.K. College Of Engineering, Nagpur, Maharashtra, India.

mail: anjalimeshram78@gmail.com

ABSTRACT:-

Root vegetables from field must be cleaned prior to weighing and grading. Soil and other foreign materials must be removed especially for medium and heavy textured soils in which a pre-harvest irrigation is used to loosen the soil prior to hand harvesting washing of fruits and vegetables is vital steps in any processing operation, which give attractive and chemical free fruits. At present washing of fruits and root vegetables is carried out manually which very tedious and time consuming and expensive process. As we know that time and human power are the important concern now a days in every field so there is a requirement of design and develop a vegetable cleaning machine which will reduce the required human effort and make their task easy. In this paper main objective is to be the detailed study of vegetable cleaner machine and getting the information from the sources available about the machine.

Keywords: cleaning process, vegetable cleaning, cad.

ME 019**HYDRAULIC PRESS MACHINE:A REVIEW**Ms. Naz Ansari¹Dr.C.C.Handa²Prof.V.N.Mujbaile³¹ M.Tech Student of Mechanical Engineering Department

KDK College of EngineeringNagpur, Maharashtra, India

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ABSTRACT:-

Hydraulic Presses are one of the oldest basic machine. In its modern form, is well adapted to press work ranging from coining jewelry to forging aircraft parts. Hydraulic Press forming are widely used for industrial cold press forming today. As wide range in shapes of products manufactured. In the present review paper an effort is made to study the previous investigations that have been made in the different structural analysis and optimization techniques of hydraulic press. Metal forming is one of the manufacturing processes which is mainly done on hydraulic press. Design aspect of different hydraulic press are discussed in this review paper.

ME 020**STUDY OF DIFFERENT TYPES OF LEAF SPRING TESTING MACHINE**Mr. Satish Chandbodhale¹ and Prof. C.C Handa²¹ MTECH Student of Mechanical Engineering Department

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ABSTRACT

A leaf spring is a form of springmade of a number of strips of metal curved slightly upwards and clamped together one above the othercommonly used for the suspension in wheeled vehicles.Leaf Springs are long plates attached to the vehicle frame. For safe and comfortable riding, to prevent the road shocks from being transmitted to the vehiclecomponents and to safeguard the occupants from roadshocks it is necessary to determine the maximum safe stress and deflection. The objective of this study is to meet with the design parameters of leaf spring testing machine.

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CV001**“STUDY ON REPAIR AND MAINTENANCE OF EXISTING BUILDING STRUCTURES.”**

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ABSTRACT

Now days it has become a major challenge to select right techniques, materials, and procedures for the repair of a building structure. For the maintenance of reinforced concrete structures and buildings, it requires periodic inspection; therefore it is essential that there should be little awareness regarding the periodic inspection and repair of various structures. As we know that Civil Engineering is one of the oldest engineering. The first duty of every Civil engineer is to give emphasis on the durability aspect during construction as well as maintenance. If we consider old monuments they still stand on its position very efficiently. But this is not the condition of today's structure. A collapse mechanism is increasing and today's structures are getting collapsed before their serviced life is completed. Over a period of time, as these structures become older, we find in them certain degradation or deterioration with resultant distress manifested in the form of splitting, cracking, corrosion, delaminating, carbonation etc.

KEYWORDS: repairs, maintenance, life cycle cost, cracks, new materials and techniques, rehabilitation, restoration, inspection, visual inspection, testing, rebound hammer, core cutting, SPT

CV002**A CASE STUDY OF SOLID WASTE MANAGEMENT OF NEHRU NAGAR ZONE, NAGPUR**

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ABSTRACT

The city of Nagpur, located at geographical center of country has population of 2.5 million spread across area of 217sq.km. It is estimated that city generate approximately 900-1000 tons of waste per day. Rapid growth of population coupled with urbanization has put tremendous pressure on NMC to meet growing demand of its citizen. Nagpur city is divided in 10 zones by NMC for better administration. Solid waste is collected from each zone and transferred at dumping station bhandewadi, Nagpur. Nehru nagar is part of Nagpur city as zone no 5. With population of 2, 35,000 including slum population of 79,994. Nehru nagar zone is divided into 4 wards (wathoda, Nehru nagar, ramna maroti, sakkardara). After studying the present solid waste management

system of Nagpur city major drawback of system is lack of healthy management .this study belongs to Nehru nagar zone for improvement over present swm system in terms of collection, transportation and disposal. This work may be helpful to NMC for better implementation of swm system in whole city.

Key words: solid waste, waste disposal, collection of waste, transportation of waste, Nagpur zone (Nehru nagar zone)

CV003

“COMPARATIVE ANALYSIS OF ROAD OVER BRIDGE [ROB] ABUTMENT SUBJECTED TO DYNAMIC ACTIVE EARTH PRESSURE”

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ABSTRACT

This study investigates the Structures which are subjected to two types of load: static and dynamic loads. However, the majority of civil engineering structures retaining wall & abutments are designed with the assumption that all applied loads are static. The effect of dynamic load on retaining wall & abutments is not considered because the analysis makes the solution more complicated and time consuming. This feature of neglecting the dynamic forces on retaining wall & abutments may sometimes become the cause of disaster, particularly in the case of earthquake. Nowadays, there is a growing interest in the process of designing structures capable to withstand dynamic loads, earthquake-induced load. This is needed to be done, because, in present scenario where earthquakes are occurring frequently, dynamic force cannot be neglected. Therefore it is proposed to do “dynamic analysis of bridge abutment”. As per [IS 1893: 2014]

EYWORDS :- static and dynamic loads, earthquake.

CV004

INTRODUCTION OF MODERN BRIDGE LAUNCHING TECHNIQUES

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Department of Civil Engineering

ABSTRACT

This paper gives introduction of modern bridge launching techniques .In super elevated construction process, selection of correct method of launching plays a vital role towards the overall success of project. In thus research paper the author describe the methodology of various launching techniques.

Keywords :- Bridge launching, Segment, cantilever form traveller, super structure

CV005

EVALUATING SELF HEALING CAPACITY OF BITUMINOUS MASTICS

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ABSTRACT

In earlier researches self healing behaviour was studied by applying load repetitions whereas in present research test applied is named as FHR Test (fractured healing re-fractured test) wherein test is applied on sample under test with a fixed mass under some desired momentum is applied to develop a crack with a width of 100-200 μm . Then sample under test is placed in silicon rubber module to heal during various healing periods, under various temperatures and with some material modifications. Thus whatever morphological changes during healing occur i.e. whatever changes take place during regaining its strength /capability are recorded and observed with the help of florescence microscope. After healing same cycle is repeated of fracturing under similar load conditions. Experiments so conducted concluded that the self healing capability which was measured by the refractured strength increases with increase in healing time and healing temperature.

CV006

LITERATURE SURVEY ON FLOOD FORECASTING BY MUSKINGUM METHODDhanashree Kale¹, Harshal Gondane², Smruti Chahande³ 8 th Semester 'B',

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¹dhanashreekale97@gmail.com, ²hgondane1996@gmail.com, ³shruti.chahande96@gmail.com**ABSTRACT**

Flood disaster continues to occur in many countries around the world and cause tremendous casualties and properties damage. To mitigate the effects of floods, structural and non-structural measures can be employed, such as dykes, channelization, flood proofing of properties, land-use regulation and flood warning schemes. Sufficient advance warning time may save lives and property by allowing time to effect various structural and other adjustments. For flood forecasting various methods is used for determining peak discharge. For calculating the peak discharge Muskingum method is used in this project. The Muskingum method is hydrological flow routing model with lumped parameters, which describes the transformation of discharge waves in a river bed using two equations. The first one is continuity equation (conservation of mass) and the second equation is the relationship between the storage, inflow, and outflow of the reach (the discharge storage equation). For executing various parameters used in the method, the application software of HYMOS is used. Keyword-Flood forecasting, Muskingum Method, HYMOS

CV007

“PARAMETRIC STUDY OF GEOPOLYMER CONCRETE USING FLYASH, GGBS AND FIBERS”Dhananjay R. Kawale¹, Abhijit Deshmukh¹, Akshay Urkude¹, Nikhil Motghare¹ D.S.Padole²

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¹UG student, ²Assistant Professor Department of Civil Engineering, K.D.K College of Engineering Nagpur.**ABSTRACT**

The main propose to produce a carbon dioxide emission free cement material. In this present study the main limitations of fly ash based geo-polymer concrete are slow setting of concrete at normal temperature and the necessity of heat curing are to gain in strength. The Alkaline solution used in this study for the polymerization process is the solutions of sodium hydroxide and sodium silicate. A 12 and 14 M solution was taken to prepare the mix. The cube specimens are taken of size 15 cm x 15 cm x 15 cm. The curing of concrete at 60^oc temperature

was adopted. In total 9 cubes for each combination were cast for six different mix proportions and the cube specimens are tested for their compressive strength at age of 3-7-28 days. The result shows that geo-polymer concrete cubes gains strength within 24 hours without water curing at 60°C temperature. Thus the geo-polymer concrete is said to be an environmentally pollution free construction.

CV008**ANALYSIS AND DESIGN OF PRE-ENGINEERED BUILDING OF AN INDUSTRIAL SHED BY AMERICAN CODE.**

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ABSTRACT:-

The paper is based on Comparison of Design and Analysis of Pre-Engineered Building by IS code and American code. In recent years, the introduction of Pre Engineered Building (PEB) concept in the design of structures has helped in optimizing design. The adoptability of PEB in the place of Conventional Steel Building (CSB) design concept resulted in many advantages, including economy and easier fabrication. In this study, an industrial structure (Ware House) is analyzed and designed according to the Indian standards, IS 800-1984, IS 800-2007 and also by referring MBMA-96 and AISC-89. Design of the structure is being done in StaadPro software for the loadings like Dead load, Live load, Wind load and Wind Forces Analysis.

Key Word: - Steel Structure, Pre Engineered Building (PEB), Loading analysis, Wind forces Analysis, StaadPro software, Comparison, Economical.

CV009**AN OVERVIEW ON SEISMIC ANALYSIS OF MULTISTORIED BUILDING USING EQUIVALENT STATIC LOAD METHOD & RESPONSE SPECTRUM METHOD: A LITERATURE SURVEY.**

^[1] Mohit B Ghate, ^[2] Janhvee V Motghare, ^[3] Snehal S Hadke

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ABSTRACT

Performance based seismic design in the context of prediction of inelastic seismic responses and seismic performances of building structure are very important topic to be concern. Various forces act on a building but earthquake force is one of the most critical force and must be considered while analysis and design of multi-storied building, as per IS: 1893-2016 recommendations. Various software now a days are available for analysis and designing of building by considering the earthquake forces and to review or study the behaviour of multi-storied buildings by equivalent static lateral force method and response spectrum method and literature reviews of various papers considering this method are studied. Alternative survey of the research paper is done and it is

observed that the response spectrum method is used for analysis of multi-storied building and incorporated in most of the course related to earthquake analysis of building. The equivalent static load method is used oftently for regular buildings.

Keywords:-Multi-storey building, seismic analysis, response spectrum method, equivalent static lateral force method, STAAD –PRO,ETABS.

CV010

SEISMIC ANALYSIS OF G+5 STORYBUILDING BY AND EQUIVALENT STATIC LATERAL FORCE METHOD AND IT RESULT COMPARISON MANUALLY AND WITH THE SOFTWARE RESULT.

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ABSTRACT

In the present era Design of earthquake resistance structure, seismic analysis of multistoried building by various software such as STAAD- PRO,ETABS etc. several researches and projects have been conducted on how to design well earthquake resistance building, because earthquake occurred in multistoried building shows if the structures are not well designed it leads to complete collapse of structure to ensure the safety against seismic forces of multistoried building hence there is need to study of seismic analysis to design earthquake resistance building. In seismic analysis of multistoried building it is important to find out the base share of building because the seismic forces firstly affect the base of building. So in this paper we are carried out the seismic analysis of G+5 storey building by equivalent static method. The main objective of analysis is to find out base share by manually and by the ETABS software and comparing manual results with the software result.

KEYWORDS: Multi-storey building, seismic analysis, static method, ETABS Software.

CV011

A REVIEW PAPER ON DISASTER MANAGEMENT

Ms. Bhagyashree Meshram, Mr. Rajat Bodne

Department of Civil Engineering

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ABSTRACT

Disaster is the exposure of a group of people to a hazard, leading to a serious disruption of the functioning of a society and causing human, material, economic environmental losses which exceed the ability of the affected

community or society to cope. A disaster results from a combination of hazards and vulnerability that exceeds the capacity of a society to reduce the potential negative consequences of risk. A disaster is a consequence of a sudden disastrous event which seriously disrupts the normal function of the society or the community to the extent that it cannot subsist without outside help. A disaster is not just the occurrence of an event such as an earthquake, flood, conflict, health epidemic or an industrial accident; a disaster occurs if that event/process negatively impacts human populations. Disasters combine two elements: hazard, and the vulnerability of affected people. "A disaster occurs when a hazard exposes the vulnerability of individuals and communities in such a way that their lives are directly threatened or sufficient harm has been done to their community's economic and social structure to undermine their ability to survive. A disaster can be defined as any tragic event stemming from events such as earthquakes, floods, catastrophic accidents, fire and explosions. It is a phenomenon that disasters can cause damage to life, property and destroy the economic, social and cultural life of people.

Keywords – destruction, catastrophic, steaming.

CV012

A REVIEW ON ENVIRONMENTAL IMPACT ASSESSMENT FOR HIGHWAY

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ABSTRACT

The Environmental Impact Assessment is a systematic investigation of both positive and negative impacts on the physical, biological, socio-economic environment which would be caused or induced due to a proposed project. EIA provides a plan to reduce the negative environmental effect of proposed development project through alternative approaches, design modification and remedial measures. Construction of highway is a major activity of economically developed countries. Road development is major source of damage to the environment, including ecological destabilization, habitat disturbance and damage to flora and fauna. In this study, environment impacts are analyzed. The study concentrate on the environmental impact assessment of the project in the light of the existing situation at the site. The parameters covered in the study are socio-economic, biological, air, dust, water, noise, accidental, ecological and soil, sample of air, water and soil were taken to analyze their present condition. After analyzing different parameters and discussing the probable impact suggestion are made regarding the mitigation measures that can be taken at different stages in order to reduced the environmental impacts.

Keywords: EIA-Environment Impact Assessment, ROBs-Records of Decision, SWOT- Strength, Weakness , opportunity and threat, MOEF-Ministry of Environment and forestry, EPA-Environment Protect Act.

CV013

SOLID WASTE MANAGEMENT

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ABSTRACT

Solid Waste Management is a complex task which requires appropriate organizational capacity and cooperation between numerous stakeholders in the private and public sectors. Although it is essential to public health and environmental protection, solid waste management in most cities of developing countries is highly unsatisfactory. If it is not handled carefully the problem of Solid Waste will multiply and will become a disaster for the world. To resolve this issue, cities and their citizens should join together to create sustainable lifestyles and an ecological civilization in which people and environment coexist in harmony.

CV014

ANALYSIS OF OVERHEAD WATER TANK SUBJECTED TO WIND PRESSURE- STAAD PRO

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ABSTRACT

As we know that liquid storage water tank are collapsed due to excessive contact of wind. Therefore while designing a water tank most of considering Dead Load + Live Load and Wind load as per IS code practices. While designing a water tank wind is an important parameter should be considered. In India the wind effect on the elevated structures is so important as wind flows relative to the surface of ground and generates loads on the structures standing on ground. The Indian standard code IS 875 (Part 3) is used for wind study. The elevated structures are designed for various terrain categories of wind forces such as 39m/s, 44m/s, 47m/s and 50m/s. It is found from the analysis that the total load, total moments and reactions vary as there is a change in different types of staging, bracing such as diagonal bracing, cross bracing.

Key Word: Wind Load, Water Tank, Bracing, Staging, IS Codes etc.

CV015**A CASE STUDY OF BIOGAS PRODUCTION FROM KITCHEN WASTE**

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ABSTRACT

Kitchen waste is the best alternative for biogas production in a community level biogas plant. It is produced when bacteria degrade organic matter in the absence of air. Biogas contains around 55-65% of carbon dioxide. The calorific value of biogas is appreciably high (around 4700 kcal or 20 MJ at around 55% methane content). The gas can effectively be utilized for generation of power through a biogas based power-generation system after dewatering and cleaning of gas. In addition, the slurry produced in the process provides valuable organic manure for farming and sustaining the soil fertility. During the process of biogas production, the temperature, solar radiation and relative humidity have been measured. In this paper, the constituents of biogas, pH, volume and rate of biogas production at different level of temperature observations on daily basis are analysed. Here we also compare the rate of biogas production from kitchen waste with the other energy sources used for cooking purposes like LPG, Kerosene and coal.

Keywords __Biogas, Methane, Kitchen waste, fuel.

CV016**“RIVER POLLUTION” REVIEWS, ACTIONS AND ADAPTATIONS**

Akshay Shiyale, Dilesh Katre, Dinesh Gautam, Jitesh Bokde, Gaurav Agrawal

B.E. (Civil Engineering), Sixth Semester

ABSTRACT

Water is life and it plays important role in our day today life. The objective of this research studies is to analyse the water and waste water characteristics of Nag river and groundwater quality in the vicinity of the river. Nag River, which serves as the tributary of the Kanhan River originates in the hills to the west of Nagpur and flows in a serpentine course past Nagpur City, joining the main river at Saongi in the east of the District. Today most of the Nagpur sewage is let into Nag River tributaries without any sufficient treatments, which includes wastes, hazardous in nature of this river which crosses the city which has population of about 50 lakh, which makes the river extremely polluted. The River which titled the city is now struggling for its own existence. For the analysis purpose of the river, by whose name lots of people swear as their mother, has been divided into areas based on the occupancy. The values from the studies were found to be problematic in the vicinity and nearby area. In the present study, groundwater samples of monsoon, winter and summer season of the selected five different zones of the city were taken for the investigation and analyzed for various parameters with regard to drinking water standards and assessed for their suitability for human consumption. The results of ground water direct us to the fact that the pollution in Nag river has its effect on the ground water as well as the Water Quality Index (WQI) which reflect a composite influence of contributing factors on the quality of water for any water system and the control on its pollution level by using suitable measures and adaptations which lead to its liveliness.

CV017

EVALUATION OF BEAM WITH VARIED LOAD CONDITION BY ANSYS AND VALIDATION WITH STADD PRO.

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ABSTRACT

Generally in building structure practice only concrete elements are designed and analyzed using Software's like STADDpro, SAP-2000 and E-TABS , Basically in other software deflection show in some Interval but in ANSYS deflection shows on every point of the element. By using FEM tools, modelling of element having different geometry is possible. But for new approach validation is necessary. In this paper evaluaten of different beam with varied loading condition is analyzed using ANSYS as base , same elements is analyzed in STAAD PRO for validation .

keywords: Concrete beam, FEM, ANSYS, STADD-PRO, Types of loading.

CV018

TO STUDY THE VARIOUS PARAMETER OF AIR POLLUTION CONTROL BUILDING CSIR NEERI

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ABSTRACT:

A green building, which is also known as a sustainable building is designed to meet some objectives such as occupant health; using energy, water, and other resources more efficiently; and reducing the overall impact on the environment. It is an opportunity to use the resources efficiently while creating healthier buildings that improve human health, build a better environment, and provide cost savings. All the infrastructural development projects lead to over consumption of natural resources. This study focus on the green design as the vital transformation of contemporary architecture practice in developing nation. It endeavours to present some environmental and physical design approach for green building in promptly developing countries chiefly India design which is environmental friendly.

CV019

CROP WATER REQUIREMENT BY MODIFIED PENMAN METHOD USING HYMOS SOFTWAREA. M. Shende¹, S. R. Semaskar², K. S. Rathod³.

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ABSTRACT

Estimating water required for proper growth of crop for the basic need for crop production and crop planning for any irrigation project. As India is an agricultural country so basically all its resources depend on the agricultural outcome. It is essential to supply the optimum quantity of water through its crop period for its growth. For estimation of optimum quantity of water we required the water requirement of each type of crop and for estimating water requirement it is necessary to know the Evapotranspiration. There are different method for calculation of evapotranspiration but in this project we are using MODIFIED PENMAN METHOD as it is more accurate. Then using HYMOS actual Evapotranspiration is calculated for Kamthi-Khairi region by using various climatological factors, Rainfall data and then estimation of crop water requirement is done. This will provide an idea for the planning, scheduling of different irrigation projects and the optimum use of water for the growing of the crops.

KEYWORDS: Evapotranspiration, HYMOS, Modified Penman Method.

CV020

ANALYSIS OF BEAM BY ETABS AND VALIDATE THE RESULT BY STAAD PRO

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ABSTRACT

This paper gives introduction about modern software like STAAD Pro and ETABS. STAAD Pro and ETABS are the present day leading design softwares in the market. Many design companies use these softwares for their project design purposes. So, this project mainly deals with the comparative analysis of the results obtained from the design of a regular and a plan multi storey building structure when designed using STAAD Pro and ETABS softwares separately.

Keywords :-Comparison Structure Design, ETABS, STAAD pro

CV021**CROP WATER REQUIREMENT BY MODIFIED PENMAN METHOD USING HYMOS SOFTWARE**P. Waiwatkar¹, S.G. Karanjekar², A. Rathod³

[1], [2] & [3] Students of KDK College of Engineering, Nagpur

ABSTRACT

The crop water requirement is an important term related to the planning of irrigation scheme, irrigation scheduling, crop planning on farm and amount of water required for various crops. The crop water requirement for crops can be determined by estimating the evapotranspiration with the help of various methods such as standard penman method, pan evaporation method, Christiansen method, Makkink method, Jensen-Haise method, Blaney–Criddle method, Hargreaves method, Radiation method, Thornthwaite method, Mass transfer method and Modified Penman method. Modified Penman Method is used for calculating evapotranspiration due to its resemblance with the actual field performance using HYMOS software for Pench Project study area. The actual evapotranspiration for Kamthi-Khairi is determined by comparing the analysis of last five-year record based on the rainfall and other climatological factors from the catchment area.

KEYWORDS: Evapotranspiration, HYMOS, Modified Penman Method.

CV022**“STUDY ON REPAIR AND MAINTENANCE OF EXISTING BUILDING STRUCTURES.”**

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ABSTRACT

Now days it has become a major challenge to select right techniques, materials, and procedures for the repair of a building structure. For the maintenance of reinforced concrete structures and buildings, it requires periodic inspection; therefore it is essential that there should be little awareness regarding the periodic inspection and repair of various structures. As we know that Civil Engineering is one of the oldest engineering. The first duty of every Civil engineer is to give emphasis on the durability aspect during construction as well as maintenance. If we consider old monuments they still stand on its position very efficiently. But this is not the condition of today's structure. A collapse mechanism is increasing and today's structures are getting collapsed before their serviced life is completed. Over a period of time, as these structures become older, we find in them certain degradation or deterioration with resultant distress manifested in the form of splitting, cracking, corrosion, delaminating, carbonation etc. Therefore, it is advisable to monitor it periodically by taking professional opinion.

KEYWORDS: repairs, maintenance, life cycle cost, cracks, new materials and techniques, rehabilitation, restoration, inspection, visual inspection, testing, rebound hammer, core cutting, SPT

CV023

GENERATION OF BIO-GAS FROM KITCHEN WASTE

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ABSTRACT

All general institutes having their own canteen which have their individual kitchen, where daily a large amount of organic waste is obtained which can be utilized for better purposes. Biogas production requires Anaerobic digestion. Project was to create an Organic Processing Facility to create biogas which will be more cost effective, eco-friendly, cut down on landfill waste, generate a high-quality renewable fuel, and reduce carbon dioxide & methane emissions. Overall by creating a biogas reactor on campus in the backyard of our Girls Hostel will be beneficial. Kitchen (food waste) was collected from different hostel kitchen of KDK campus. The anaerobic digestion of kitchen waste produces biogas, a valuable energy resource Anaerobic digestion is a microbial process for production of biogas, which consist of Primarily methane (CH₄) & carbon dioxide (CO₂). Biogas can be used as energy source and also for numerous purposes. But, any possible application requires knowledge & information about the composition and quantity of constituents in the biogas produced. The continuously-fed digester requires addition of sodium hydroxide (NaOH) to maintain the alkalinity and pH to 7.

KEYWORDS: Biogas, Biomass, Organic waste, Disposal of organic waste, Energy, Fuel

CV024

STUDY AND EVALUATION OF VARIOUS PARAMETRIC VALUES IN MULTISTOREY BUILDING BY STAAD PRO.

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ABSTRACT

The main aim of paper is to analysis and study various parametric values in multistoried building using STAAD pro. In this project G+5 storied building is consider and applied dead and live load. Design is done by load coming on the structure and decide the dimension of structure .Using the parameters and analysis the bending moment axial force, shear force. Consider dead load and live load on structure as per IS 875 (part I & II). In this paper STAAD pro has been used for analysis and design purpose (bending

moment and shear force). We concluded that STAAD pro is very useful, fast, easy, and accurate for analyzing and design structure.

Key words: - STAAD PRO, analysis, dead load, live load, bending moment, axial force.

CV025

LOW COST HOUSING BY USING PRECAST TECHNIQUE IN RURAL REHABILITATION

Roshan dhok, Sonali Madankar, Saurabh zode

ABSTRACT

This Project aims to point out the various aspects of precast constructing methodologies for low cost housing by highlighting the different precast techniques, and the economical advantages achieved by its adoption. In a house the foundation, walls, doors and windows, floors and roofs are the most important components, which can be analyzed individually based on the needs thus, improving the speed of construction and reducing the construction cost and also we reducing the cost of construction by Minimum use of land, Functional design of houses, Optimum use of building materials, New construction materials with low rates. The major current methods of construction systems considered here are namely; precast wall or wall panel, precast footing and column, precast plinth beam and other material like door, window and asbestos cement (AC) sheets are considered. The precast technique is use in construction of low cost houses for poor people in Mouza Jamni, Chimur, Chandrapur.

CV026

STUDY OF STRUCTURAL FEATURES OF NAGPUR METRO

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ABSTRACT

Nagpur is the third largest city of Maharashtra and the winter capital of the state with a population of approximately 25 lakhs and it is the 13th largest urban conglomeration in India. Nagpur lies precisely at the center of the country with the Zero Mile Marker indicating the geographical center of India. In addition to these the city is also a commercial centre of the state. It is also a major trade centre of oranges that are cultivated in the Nagpur region on large scale. Also, it has been selected for the Smart City Project- a government initiative. Because of its regional and commercial importance there is need of better transportation system in the city. For decongestion of traffic within the city the metro work is started in the late 2015. This project consists of various different types of structural member. This paper focuses mainly on the structural work carried in the Nagpur Metro construction.

KEYWORDS: Conglomerate, Decongestion, Zero Mile Marker

CV027**ANALYSIS OF PORTAL FRAME BY ETABS AND VALIDATE THE RESULT BY STAAD PRO**

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ABSTRACT

This paper gives introduction about modern software like STAAD Pro and ETABS. STAAD Pro and ETABS are the present day leading design software's in the market. Many design companies use these software's for their project design purposes. So, this project mainly deals with the comparative analysis of the results obtained from the design of a regular and a plan multi storey building structure when designed using STAAD Pro and ETABS software's separately.

Keywords :- Comparison Structure Design, ETABS, Staad pro

CV028**AN OVERVIEW ON GEOPOLYMER CONCRETE : A LITERATURE SURVEY**

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ABSTRACT

In recent years, portland cement concrete industry has grown universally. Concrete is the most used manmade product for the construction after water. Due to increase in the infrastructure demand of concrete as a construction material has increased. The production of Ordinary Portland Cement(OPC) contributes to green house gas emission. It also consumes large amount of energy. Hence it is essential to find alternative to cement. The fly ash which is a waste product from thermal power stations is used as a replacement of cement in concrete referred as "Geopolymer concrete". The main objective of this study is to produce geopolymer concrete by using GGBS and flyash in replacement of cement which helps to reduce CO₂ emission. The alkaline liquids which helps for polymerization process are the solution of sodium hydroxide(NaOH) and Sodium Silicate(Na₂SiO₃) solution. This study also revealed that to gain the better strength of concrete various sizes of steel fibers can be used. It has been observed that geopolymer concrete with GGBS in flyash as increases its compressive strength and other properties are also increases. From this study it is found that geopolymer concrete can be used as a building material in a effective ways and it is one of the way to reduce the dumping of flyash in environment. This paper presents a brief history and review about geopolymer concrete and vast categories of materials that may be synthesized by alkali activation of alumino silicates.

keywords: geopolymer concrete, fly ash, GGBS, steel fibres, alkaline activator solution.

CV029

REDUCTION OF LOCAL SCOUR AROUND BRIDGE PIER BY USING COLLAR A REVIEW

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Scour happening around bridges pier is one of the major reasons to the bridge destruction. At present time, there are various methods to prevent scour of bridge bases. One method is to set protector boards (Collars) around the bridge pier. Collars protect bed against vortex system surrounded of bases and it reduces amount of water scouring. Failure of bridge cause tremendous loss of money and adversely affects the development of the country. This has a negative impact on sustainable development of the country and causes extra burden on the government for restoration /reconstruction of bridges. In these perspectives, an effort has been made in this paper to study the literature for investigating experimentally the efficacy of collars to a bridge pier in reducing the scour depth. Keywords:- Bridge pier scouring, lozenge Collars, Square Collars, Circular Collars , Mathematical model.

CV030

REDUCTION OF LOCAL SCOUR AROUND BRIDGE PIER BY USING COLLARANUJA CHOUDHARY¹, PRASANNA KANOJE ²

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An ever increasing number of bridge failures are caused not only by structural defaults but also due to the effect of Local scour around bridge piers and abutments. At present there are various methods to reduce the local scour around bridge bases. One method is to set collars around bridge piers. Collar protect bed against vortex system surrounded of bases and it will reduce amount of local scouring. Square, circular and diamond shape collars of some specified thickness have been used around bridge piers to reduce amount of local scour in present research. Collars used in experimentation are having dimensions twice that of pier dimension. A constant discharge of 0.98lt/sec was considered for this test and median size of bed grain are considered as equal to 1.4mm. The performance of collars of different shapes around piers of dimensions (40mm) are compared with the performance of piers of specified sizes without collar. It was found that circular collar have significant effect on reduction of scour than diamond & square collars.

KEYWORD:- Bridge pier, pier scouring, lozenge Collars, Square Collars, Circle, Collar, Scour Mechanism, Laboratory model.

CV031

FLOOD FORECASTING ON GADHVI RIVER BY MUSKINGUM METHOD

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ABSTRACT

Flood disaster continues to occur in many countries around the world and cause tremendous casualties and properties damage. To mitigate the effects of floods, structural and non – structural measures can be employed, such as dykes, channelization, flood proofing of properties, land-use regulation and flood warning schemes. Sufficient advance warning time may save lives and property by allowing time to effect various structural and other adjustments. For flood forecasting various methods is used for determining peak discharge. For calculating the peak discharge Muskingum method is used in this project. The Muskingum method is hydrological flow routing model with lumped parameters, which describes the transformation of discharge waves in a river bed using two equations. The first one is continuity equation (conservation of mass) and the second equation is the relationship between the storage, inflow, and outflow of the reach (the discharge storage equation). For executing various parameters used in the method, the application software of HYMOS is used.

Keywords- Flood forecasting, dykes, channelization Muskingum, HYMOS

CV032

DISCHARGE MEASUREMENT IN TRAPEZOIDAL CHANNELS BY USING MOBILE PRISMS

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ABSTRACT

The purpose of field water measurement is conservation of water by improving operation of its distribution techniques and field implementation. The flow measurement is carried out by using different flumes or electromagnetic devices which are generally expensive. Many of the flumes are of non-portable type and require then those to be permanently installed in canals for measurement of flow rates. India is an agricultural country where large no. of networks of canal are found, whose cross section are mostly trapezoidal. The scarcity of water the globe necessitates the need for measuring of every small flow through the field canals for better conservation and management of water. Selection of flume in particular application totally relies upon site designation factor or limitations and the need for precision and cost. Flow measurement (both temporary and continuous) in trapezoidal irrigation channels, sewers or drains, can be easily carried out using measuring flumes. This study presents a particular type of flume with an ambulatory prism placed along the centre of trapezoidal channel. This kind of setup allows moving this devise from one station to another, so that the object is absolutely ambulant and the flow rate can be obtained by constricting the flow with the help of an object like glass prism creating critical flow condition. The experimental study of prism having different dimensions is reported and experiment is carried out for free flow condition. Non dimensional analysis is applied to obtain an individual solution for each prism, and the conclusion thus explained is valid for any geometrically similar device

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EL 001**COIN OPERATED GLUCOSE WATER DISPENSER BASED ON SOLAR ENERGY**Jayshree V. Aghav⁽¹⁾, Pooja A. Ghangare⁽²⁾

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Now a day's in India lifestyle is changing day by day, being a tremendous development in technology. Now there is need of developing various technologies persisting economic condition. In today's world germs are increasing due to pollution which effect in draining of energy, that's why we thought of developing such a machine which enhances quality and customization of vending machine. So we purpose a system in which coin operated Glucose water vending system. At present people needs to avoid human involvement, so we are developing coin operated Gluco sip machine. This is also the part of smart city.

Index Terms – CRU, keyboard, microcontroller, LCD, solenoid valve

EL 002**STUDY AND REVIEW OF CABLES USED IN SOLAR INSTALLATION**

Darshan Nakhate, Shubham Pardhi, Dr. S.S Ambekar

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ABSTRACT

Planning and installation of a PV power plant involves lot of calculation and design of electrical circuitry. For a roof top or ground mounted efficient solar power plant, it becomes very essential that all energy generated get transferred to load as the efficiency of PV cell is relatively very less and installation is a costlier process. The power transmission to cables need good design, selection and careful handling. Cables are subjected to thermal, mechanical and electromagnetic stresses. For a long lasting electrical circuit with exposure to harsh environmental condition like temperature fluctuations and UV rays, it becomes necessary to protect he cable network. This paper reviews the conductor and cables used in solar installations, it also gives the specification difference in normal DC power and DC cables used in solar system.

EL 003**STUDY OF EFFECT OF MAGNETIZING INRUSH CURRENT ON POWER TRANSFORMER USING POWER ELECTRONICS IN MATLAB**

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Guided by – Mr. C.J. Sharma, Asst. Prof.

Department of Electrical Engineering,
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This paper highlights the effect of magnetising inrush current on power transformer. In this paper the effect of inrush current is studied with the help of Triac, a high switching device. Inrush current normally appears due to saturation of magnetization of iron core, when the transformer is energised. In the proposed method Triac is used for the short period of time for energization of transformer. By controlling the phase angle of Triac magnetic inrush current is reduced. To study the performance of proposed method, simulation of power system model is carried out in MATLAB and inrush current at various switching angle is studied.

Key words – Power transformer, Inrush current, Transients, Triac, Switching angle, MATLAB

EL 004**RENEWABLE ENERGY TECHNOLOGY**

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ABSTRACT

This paper includes about different energy sources , different types of sources and about renewable energy sources. Energy sources are the opportunities an area offers to generate electricity based on its natural conditions. There are two types of energy sources. Renewable energy sources and non-renewable energy sources. Non-Renewable energy are those energies which formed over millions of years by the geological processes. Ex. petroleum , natural gases , coal, etc.

Keywords— sources, renewable energy, solar energy, geothermal energy

EL 005**POWER QUALITY ENHANCEMENT IN IEEE 14-BUS BY USING UPFC**

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ABSTRACT

Now a days, the demand of electricity generation is increased tremendously as the utilization of it and other distributed power systems have expanded drastically. With respect to demand of power, at times, it is not possible as well as economical to set up new /transmission lines. The increment in the non-linear loads and the consumption of electrical energy in power systems tends to force the electrical power utilities to provide a large electrical power and this is the cause that this problem becoming more and more significance in power systems. Hence in electrical Power System for governing, UPFC is the most promising FACTS controller. UPFC is the versatile facts device which can provide full dynamic control of transmission line parameter, bus voltage, line impedance as well as angle, for improvement of system stability and security. In this paper, Unified Power Flow Controller is studied to improve the power flow over a transmission line in a standard IEEE 14 bus system by using MATLAB / SIMULINK. For the selected system, active and reactive power flows are compared with and without UPFC. Key words: FACTS, IEEE-14 Bus system, UPFC, Power system performance.

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EL-ALIMENTO -THE FOOD APP

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ABSTRACT

This online food app is the one which could be used as the interaction between the foodies and the restaurants. This app provides an interaction and a development area for the providers by the reviews being provided by the user. This app is being totally being developed to ensure the **foodies** for their “**money to spend**” and a well to do place. This app provides a direct interaction and development for the restaurants by seeing the reviews they could enhance the taste which could lead to the benefit of the restaurants and the foodies for the better taste. This app helps the customer to set the reviews and make a choice of themselves for the better taste. This provides a better assurance for the customer and set their plans for their best experience for the food and spending quality time. They could be provided at their best rates they could afford at and could have a quality time at that place. This app provides a specified rating on the basis of the taste, availability, cost, location, occupancy. This app collects all the data for the monthly wise result being provided by the user. This review being done provides a graphical representation for the restaurants to manage their sales and maintain performance. This leads to the better management of the restaurants and their development and to improve or increase customer and restaurant interaction.

CT002

HOME FILE SERVER

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ABSTRACT

with growth in Internet subsequent growth is distributed computing is seen and so in server-client computer model. Sharing of files and resources was the core reason in foundation of Internet. The following paper discuss various ways we store, access and share our files and data and the problems associated with them. Also the paper discuss the way to create a cheap Network Attached Storage device.

CT003**Friend finder**

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ABSTRACT

the computer and then the Internet has revolutionized the way in which people were communicating, managing to overcome any limitation of time and space enabling them to exchange information in an efficient way. For the security of the users, we included the facilities in which it allows close friends or family to check the user's location based on a keyword User will register in this application and only registered users are permitted to use this application with there credentials. Validation of each user is done during login.

CT004

VIRODETECT

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ABSTRACT

The typical antivirus approach consists of waiting for a number of computers to be infected, detecting the virus, designing a solution, and delivering and deploying the solution, in such situation, it is very difficult to prevent every machine from being compromised by virus. This paper shows that to develop new reliable antivirus software some problems must be solved such as: a new method to detect all metamorphic virus copies, new reliable monitoring techniques to discover the new viruses or attaching a digital signature and a certificate to each new software.

CT005

GROCERY MANAGEMENT SYSTE

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ABSTRACT

This software project Grocery Management System deals with Windows Desktop Application with barcode scanning for the fast searching of the product. In the current scenario, there are many problem during the generation of bill more than one at a time also it consumes time and maintain the stock manually where number of inefficiencies that a salesperson faces. So, to overcome all the current issues we are developing a software that fixed the billing problem, this application is able to generate more than one bill and can be able to keep the bill on hold.

The project also manage the all Product Details with there barcode as well as supplier of the product. It also show the current Stock of the product immediately after updating or selling the product. It has also provided the facility of Supplier Ledger Details where we track the particular supplier products. The project also maintain all the reports that would be the important to track the income and expenses in the shop. The barcode searching facility is also provided for the faster searching of the product from the database. The project is developed with the objective of making the reliable, easier, fast, and more informative.

CT006

DATA DEDUPLICATION WITH PRIVACY IN CLOUD STORAGE

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ABSTRACT

In cloud storage services, data deduplication is specialized data compression technique for eliminating duplicate data and save space and bandwidth requirements of services . Deduplication is most effective when multiple users outsource the same data to the cloud storage, but it raises issues relating to security and ownership. Authentication of ownership schemes allow any owner of the same data to prove to the cloud storage server that he owns the data in a robust way. However, many users are likely to encrypt their data before outsourcing them to the cloud storage to preserve privacy, but this hampers deduplication because of the randomization property of encryption. However, most of the schemes suffer from security flaws, since they do not consider the dynamic changes in the ownership of outsourced data that occur frequently in a practical cloud storage service. In this paper, we propose a novel server-side deduplication scheme for encrypted data and check the privacy by authenticate.

CT007

FOG COMPUTING BANK MANAGEMENT SYSTEM

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ABSTRACT

Cloud computing promises to significantly change the way we use computers and access and store our personal and business information. . We propose a different approach for securing data in the cloud using offensive decoy technology. When unauthorized access is suspected and then verified using challenge questions, we launch a disinformation attack by returning large amounts of decoy information to the attacker. This protects against the misuse of the user's real data.

Keyword: - *Cloud computing, fog computing, decoy technique, insider theft attacks.*

CT008

SMART CITY BASED ON INTERNET OF THINGS USING LI-FI AND WI-FI

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ABSTRACT

Future is the world where human efforts will be negligible and machines would be automated. This can only be achieved by advancement in technology. One such technology is "IoT". Internet of Things is the future of automation. What we want to present is a Flexible and Feasible IoT device which could be used for various purposes such as home, office, restaurants, malls, Hospitals automation etc..., Second is LI-FI, this technology provides a medium which is reliable, secured and Faster than Wi-Fi, which makes this technology compatible and well suited for this purpose. Most hazardous threat to the system would be the interference of an unauthorized user which can lead to put the user privacy and security in danger that's the reason IoT is still not available to common people. This can be avoided using LIFI technology to make the system more secured and faster. Third we are also using WIFI for primary usage of IoT technology.

CT009

FINGERPRINT BASED BIOMETRIC ATM AUTHENTICATION SYSTEM

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ABSTRACT

Fingerprint matching is still a challenging problem for reliable person authentication because of the complex distortions involved in two impressions of the same finger. In this paper, we propose a fingerprint matching approach based on Genetic Algorithms which finds the optimal global transformation between two different fingerprints. We present a fingerprint matching algorithm that initially identifies the candidate common unique (minutiae) points in both the base and the input images using ratios of relative distances as the comparing function. The performance of a minutiae extraction algorithm relies heavily on the quality of the input fingerprint images in order to ensure that the performance of an automatic fingerprint identification/verification system will be robust with respect to the quality of input fingerprint images, it is essential to incorporate a fingerprint enhancement algorithm in the minutiae extraction module. Combination of such technologies may help in reducing the ATM frauds and hence can improve the security level of other financial transactions.

CT010

AN OVERVIEW ON EFFICIENT ALGORITHMS FOR SOCIAL NETWORK COVERAGE AND REACH

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[1]307vaish@gmail.com, [2]ankitawashimkar96@gmail.com, [3]yogeshri.c@gmail.com**ABSTRACT**

Social networks connect people each other and have emerged in recent times as platforms for businesses, individuals and government agencies to conduct a number of activities right from marketing to emergency situation management. As a result, a large number of social network analytics tools have been developed for a variety of applications. A snapshot of social networks at any particular time, called a social graph, represents the connectivity of nodes and potentially the flow of information amongst the nodes in the graph. Two specific problems related to information flow have implications in many social network applications: (a) the vertex cover problem (i.e. finding a minimum set of nodes one has to know to recover the whole graph) and (b) the vertex reach problem (i.e. determining the minimum set of nodes one required to reach all nodes in the graph within a specific number of hops). Thus the approximation based approach has proposed that outperforms another existing approaches.

Index Terms— Approximation Algorithm; Complexity; Network Coverage; Network Reach; Social Networks.

CT011

REVIEW PAPER ON E-PRESCRIPTION SYSTEM WITH DRUG SUBSTITUTION FACILITY

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ABSTRACT

This review study aimed to Design an efficient digital medicine prescription. Required datasets were collected by searching the database, most widely used search engines, and visiting websites of National Pharmaceutical Pricing Authority Of India.

Sometimes misinterpreted drug names in medical prescription cause severe and lethal effects to patients. This is cause by either illegible handwriting or inability of pharmacist to recognize the medicine name. some time due to higher price of medicine, patient can't afford to buy it. Hence it is necessary to have and find substitute for the high pricing medicine with lower cost. It is also possible to know the contents of medicine and replacing it with substitute with minimum price.

Keywords : Digital_prescription ; Medicine_substitution;

CT012

**CONVENIENT WAY OF BILLING MANAGEMENT I/O HUMAN RESOURCES DATABASE
MANAGEMENT SYSTEM**

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ABSTRACT

The project is based on the resources usage of the employees in the company to which the software is sold or implemented. Our software will help the companies to keep the database of the resources used by their employees. This will help to keep and give the estimates in a accurate and easy way DIGITALLY.

CT013

DEPARTMENTAL MOODLE FOR ONLINE TEST

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ABSTRACT

Online objective exam system that allows user to take online test atomically generates results based on answers mark by user. The system can be use for various online test conducted by school, colleges and institutes. The system is design to handle thousands of students concurrently at the same time without getting

logged and maintaining the ACID properties. The major goal behind the innovation of this project was to introduce a eco-friendly technique which can replace the traditional use of papers. To handle a multiple users at the same time and to manage their timing according to their login time, so each student gets equal time to attend the exam and gets instant result as the exam ends at the departmental level.

CT014

WINDOWS BASED APPLICATION FINDING IDENTITY OF A CALLING PERSON USE OF AADHAR LINKING

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ABSTRACT

A new outer measure recently appeared to fight back against phone calls .unwanted phone calls have been a major problem or a burden on the users of telephony network.Windows application are in use now a days because of the simplicity of its use.windows application can be used for both personal use or in the business.smart phones are fulfilled with many of the technologies that we used to communicate,messaging with the convergence.this application use phone numbers for the login id and according to id card i.e. aadhar number.by this application the spams are more aggressive for targeted attacks.this paper introduces a windows based application for identifying a caller when a call is received from registered users.we explore the reliability,identification and spam detection of variety of targeted attacks.we demonstrate the calling application that takes a phone number as an input and the calling application recognize the identity of a caller. It is given identity on the basis of aadhar link.

CT015

ADVANCE ONLINE ELECTION SYSTEM FOR COMPANY

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ABSTRACT

This paper presents an idea of the newly proposed system, its design parameters, its implementation techniques and parameters in detail. E-Election System is a web based system that facilitates the running of elections and surveys online. Employees are individuals who interact with the system. All employee interaction is performed remotely through the employee's web browser. Employees are provided with a online registration form before voting employee should fill online form and submit details these details are compared with details in database and if they match then employee is provided with username and password using this information employee can login and vote. If conditions are not correct entry will be cancelled. It contains two level of employee's administrator level and voter level where each level has different functionality.

CT016**HOME FILE SERVER**

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With growth in Internet subsequent growth is distributed computing is seen and so in server-client computer model. Sharing of files and resources was the core reason in foundation of Internet. The following paper discuss various ways we store, access and share our files and data and the problems associated with them. Also the paper discuss the way to create a cheap Network Attached Storage device.

CT017**LOAD BALANCING BY GRID COMPUTING DOLLY VINDANE**Student^[1]Department Of Computer Technology K.D.K.C.E, Nagpur dollyvindane786@gmail.com**ABSTRACT**

Grid computing technology can be seen as a positive alternative for implementing high-performance distributed computing. To carry out complex computational problems, grid computing is an emerging technology that involves coordinating and sharing of resources. Load balancing is the process of improving the performance of a parallel and distributed system through a redistribution of load among the processor. The main aim of load balancing is to provide a distributed, low cost scheme that balances the load across all the processors. Resource management and scheduling plays an important role in achieving high utilization of resources in grid computing environments. To resolve these issues, we are proposing optimal hierarchical scheduling algorithm for grid environment and implementing it on a Grid simulation toolkit (GridSim) to analyze the performance of OHLBA algorithm with other algorithms in terms of efficiency.

CT018**DATA SELF DESTRUCTION AND IDENTITY BASED ENCRYPTION IN CLOUD COMPUTING**

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ABSTRACT

Concerning securing data, scattered breaking point is rapidly changing into the methodology for choice. Scattered cutoff is quickly changing into the system for decision. Securing information remotely rather than locally gloats an accumulation of slants for both home and pro clients. Appropriated confine designates "the most extreme of data online in the cloud", in any case, the passed on storing up isn't completely trusted. Despite whether the educational gathering up away on cloud are or not changes into a gigantic stress of the clients additionally find the opportunity to control changes into a troublesome business, particularly when we share data on cloud servers. To deal with this issue outsourcing Revocable IBE prepares for talented key period and key sustaining strategy is available. Other than to refresh the capacity of cloud server to beyond what many would consider possible new secure data self-destructing structure in scattered figuring is used. In this system, each figure contains (encoded report) is named with a period break. In case the qualities related with the figure content satisfy the keys find the opportunity to structure and both the time minute is in the allowed time between times then the figure substance is decoded. After a customer indicated end time the data at cloud server will be securely self-destructed.

Keywords— Cloud Computing, Self-Destruction, Identity Based Encryption (IBE), Revocation, Outsourcing.

CT019

CAPTCHA

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ABSTRACT

A CAPTCHA which stands for "Completely Automated Public Turing test" is a computer program or system intended to distinguish human from machine input, typically as a way of thwarting spam and automated extraction of data from websites. Captcha does the operation of distinguishing by taking the input from the user of a text or audio file which can be read only by humans. Various problems have been detected while doing so. For example the text image may content distorted text or audio captcha may not be clear enough for the user to input a correct value. In this paper we represent solutions to such problems. In general an audio captcha contains a word. This problem is tackled by the idea of having a sentence as audio captcha.

CT020

FACE DETECTION USING API

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ABSTRACT

Face Detection is the process of detecting human face in an image. For face detection purpose API can be used. API stands for Application Programming Interface. Actually, the API (Application Programming

Interface) is a software library which makes it easier to develop a computer program. The API which is used for face detection is called as the Face API. It makes it easy to detect human face in an image.

CT021

FACE DETECTION

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ABSTRACT

Face detection has been must one of the most interesting and important research field. It is a process of detecting human faces in an images. There are different API's(Application Programming Interfaces) available which makes it easier to develop a computer program by providing all the building blocks which are then put together by the programmer. The Face detection android app is capable of detecting human faces in an images once the faces are detected they are automatically cropped Then these cropped faces can be saved in the database and could be used as per the convenience.

CT022

E-SOLUTION WEBSITE

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ABSTRACT

students are normally facing problem of not finding the correct answers of the questions which are frequently asked in the exams .so we have decided that to provide a correct answers of the question .Our website is to facilitate all the solutions of the asked questions key.

BRANCH: - ELECTRONICS ENGINEERING

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ET001**IOT BASED MULTIPATIENT HEALTH MONITORING SYSTEM**

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ABSTRACT

This paper illustrates the design and implementation of an health monitoring networked system. Statistics reveal that every minute a human is losing his/her life across the globe . More close in India, everyday many lives are affected by heart attacks and more importantly because the patients did not get timely and proper help. Care of critically ill patients, requires spontaneous & accurate decisions so that life-protecting & lifesavings therapy can be properly applied. The architecture for this system is based on smart devices and wireless sensor networks for real time analysis of various parameters of patients. This paper is based on monitoring of remote patients, after he is discharged from the hospital. Internet of Things (IoT) is the emerging paradigm, which contains huge amount of smart object and smart devices connected to the internet for communicating with each other. IoT devices are used in many fields which make the users' day to day life more comfortable. These smart devices are used to collect body temperature, heart rate, ECG, and EEG. etc., which are used to evaluate the health condition of the patient. Communicating the collected information to the doctor, making accurate decision on the data collected. we have designed and developed a low cost, reliable, energy efficient remote patient monitoring system. It is able to send parameters of patient in real time. The medical history of each patient including medications and medical reports are stored on cloud for easy access and processing for logistics and prognosis of future complications. Use of smartphones to relay data over internet reduces the total cost of the system. We have also considered the privacy and security aspects of the system keeping the provision for selective authority for patients and their relatives to access the cloud storage as well as the possible threats to the system.

ET002**16 BIT RISC PROCESSOR: SIMULATION AND DESIGN**

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ABSTRACT

The scope of my work includes study of VHDL language and algorithms for computing arithmetic and logical operation with their function suited for hardware implementation. These algorithms are used as functional blocks in RISC processor. The algorithms are coded in VHDL and validated through extensive simulation. ISE Xilinx simulator is used for the simulation of all the models. Experimental results show feasibility of modeling strategy and provide performance measures of 16 Bit RISC Processor design features. This VHDL code is then synthesized by Leonardo Spectrum tool to generate the gate level net list that can be implemented on the FPGA. This is general purpose Processor use on Application or Customer Specific Integrated Circuited (ASIC or CSIC)

Index Terms— RISC, CISC, HDL, CPU, RTL, ASIC.

ET003**MICRO WASHING MACHINE**

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ABSTRACT

Cloth washing is one of the essential part of the life but it is considered undesirable because of the involvement of efforts, time, energy and cost. Nowadays a wide variety of washing machines available in the market. All of the washing machines available in the market are electric power driven and basic principle of their operation depends upon creation of the turbulent flow of detergent around the dirty clothes. The proposed micro washing machine is very cost effective. The main objective is to reduce the size of original washing machine into micro washing machine. Also our machine requires less floor space area.

Keywords- Arduino UNO, LCD, DC Motor, Power supply circuit

ET004**SOLAR AUTONOMOUS GRASS CUTTER**

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Lawn mowing or grass cutting has been an exhaustive job with the help of traditional mechanical grass cutters, over the years with the advancement of technology it is now possible to put every work at ease. This technical paper progress towards a lawn mower which will generate its own energy with the help of a solar panel, inclusive of two modes namely manual and automatic. A Wi-Fi module is in sync with a phone camera to perform manual operation. Obstacle Sensors are interfaced to perform automatic operation in accordance with a timer.

Keywords— Solar panel, Wi-Fi module, Phone camera, Obstacle sensors.

ET005

PAPER BATTERY-A PROMISING ENERGY SOLUTION FOR INDIA

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ABSTRACT

A paper battery is a flexible, ultra-thin energy storage and production device formed by combining carbon nanotubes with a conventional sheet of cellulose-based paper. A paper battery is a flexible, ultra-thin energy storage and production device formed by combining carbon nanotubes with a conventional sheet of cellulose-based paper. Being Biodegradable, Light-weight and Non-toxic, flexible paper batteries have potential adaptability to power the next generation of electronics, medical devices and hybrid vehicles, allowing for radical new designs and medical technologies. We aim at understanding & analyzing the properties and characteristics of Paper Batteries; to study its advantages, potential applications, limitations and disadvantages.

BRANCH: -INFORMATION TECHNOLOGT

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IT 001

ROBUST SYSTEM FOR E-HEALTH RECORD USING DEDICATED TESTER FOR CONJUNCTIVE KEYWORD SEARCH^[1]Akshay Gulhane, ^[2]Arti Bhoyar, ^[3]Aditya Billore, ^[4]Ganesh Katare^{[1][2][3][4]} Students of Information Technology Department, KDK College Of Engineering Nagpur, Maharashtra, India**ABSTRACT**

Electronic health (e-health) document framework is a utility which provides ease and abundance in healthcare. The protection screen and security of the sensitive private health document is the important matter for the users. This is the only reason which is meant for the further evolution of security of documents. The searchable encryption (SE) idea is the way which provides protection shield which is the vital part in e-health document architecture. In our current system, a cryptographic primitive name is conjunctive keyword search which work along with designated tester and time enabled encryption. This scheme is based on time enabled and purposed designated tester identifiable encryption technique. Such technique delegate patients providing rules to access the document in limited time extent which are located in local area as well as remote area. The time extent provided for delegate to search the E-health document and decrypt the delegators E-health document can be identified. Once the time extent for accessing record is set, the delegate or patient or user who provided the authority can directly access the data till the time extent is expired. Our scheme supports for guessing keyword attack too. This can be done through authority tester which is able to check the possible keywords.

Keywords Searchable Encryption; Time Extent; Conjunctive keywords Indices; Designated Tester; E-health, Offline guessing Keyword Attack

IT 002

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ABSTRACT

FEEPOP is a feedback portal customized in xampp for the student of K.D.K.C.E is proposed and described. The portal is developed using several tools such as XAMP packages which consist of Apache server, MariaDB and the scripting languages are PHP and Bootstrap. the portal was designed and implemented to acquire the objectives such as to make the entry of feedback of the campus in the portal, so to make it easier for students to find the campus process that are mostly visited under the same roof, also it helps the student to ask queries to the alumni as well as teachers to answer the question publically or privately, dynamic analysis and viewing of data, proper management and navigation is easy.

KEYPOINT: Portal, PHP, XAMMP, MariaDB, K.D.K.C.E

IT 003

ANDROID BASED ERP SYSTEM

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ABSTRACT

In today's corporate world, most of companies work on ERP (Enterprise Resource Planning) systems. These systems are based on local area network. Now if the director of the company wishes to access any data or Reports at remote location, it is not possible. To overcome this problem a new approach called Android based ERP system is presented here, which would help to maintain the data of ERP at centralized location and can be accessed from anywhere in the world through Android Application. The application will be used by students, teachers and parents. In the previous system, all the information has to view in a hard file, or in website. At the same time while searching any information it is too difficult to access and takes a lot of time to search the particular website. Hence, in order to overcome this problem a smart phone based application using Android can be used to make this process easier, secure and less error prone.

Keywords—Android; ERP system; secure system(key words)

IT 004

E-Commerce Based Chatbot System

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ABSTRACT

Chatbots have the potential to save any individual's time, trouble, and aversion by automating mundane tasks. The idea about this application is that it will help the user to interact with the Ecommerce engine through an Intelligent Assistant. The application offers the exhilarating experience of placing orders on the Ecommerce site according to his/her needs and viewing the previously placed orders anytime the user wants. Chatbot will turn into a customized personal assistant that knows your online likes and preferences and serves as a magical tool to deliver the products on time and in the most convenient manner. An account has to be linked to the device, thus allowing you to back up your history in case of device malfunction or any other unfortunate activity. This paper is based on the research work that has been done for the project.

Keyword: Ecommerce, Artificial Intelligence, Intelligent Agent, Human-Computer Interaction, chatbot.

BRANCH: -MASTER OF BUSINESS ADMINISTRATION

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MB 001**FINANCIAL MARKETS IN INDIA: ISSUES & DEVELOPMENT OPTION STRATEGIES IN DERIVATIVES MARKET**

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ABSTRACT

The past decade has witnessed the multiple growths in the volume of international trade and business due to the wave of globalization and liberalization all over the world. As a result, the demand for the international money and financial instruments increased significantly at the global level. In this respect, change in exchange rates, interest rates and stock prices of different financial markets have increased the financial risk to the corporate world. Adverse changes in the macroeconomic factors have even threatened the very survival of business world. It is therefore essential to develop a set of new financial instruments known as derivatives in the Indian financial markets, to manage such risk. The basic purpose of these instruments is to provide commitments to prices for future dates for giving protection against adverse movements in future prices, in order to reduce the extent of financial risks. Today, the financial derivatives have become increasingly popular and most commonly used in the world of finance. This has grown with a phenomenal speed all over the world that now it is called as the derivatives revolution. In India, the emergence and growth of derivatives market is relatively a recent phenomenon. Since its inception in June 2000, derivatives market has exhibited exponential growth both in terms of volume and number of contract traded.

Abstract: The past decade has witnessed the multiple growths in the volume of international trade and business due to the wave of globalization and liberalization all over the world. As a result, the demand for the international money and financial instruments increased significantly at the global level. In this respect, change in exchange rates, interest rates and stock prices of different financial markets have increased the financial risk to the corporate world. Adverse changes in the macroeconomic factors have even threatened the very survival of business world. It is therefore essential to develop a set of new financial instruments known as derivatives in the Indian financial markets, to manage such risk. The basic purpose of these instruments is to provide commitments to prices for future dates for giving protection against adverse movements in future prices, in order to reduce the extent of financial risks. Today, the financial derivatives have become increasingly popular and most commonly used in the world of finance. This has grown with a phenomenal speed all over the world that now it is called as the derivatives revolution. In India, the emergence and growth of derivatives market is relatively a recent phenomenon. Since its inception in June 2000, derivatives market has exhibited exponential growth both in terms of volume and number of contract traded.

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MB 002

STUDY OF COMPETENCY MAPPING OF EMPLOYEES IN AN ORGANISATION

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ABSTRACT

Competency is a set of knowledge, skills and attitudes required to perform a job effectively and efficiently. A Competency is something that describes how a job might be done excellently; a Competence only describes what has to be done, not how. The best way to measure and predict performance is to assess whether people have key competencies. Competencies can be learnt and developed. They should be made visible/accessible; they should be linked to meaningful life outcomes that describe how people should perform in the real world. Employee hard skill, knowledge and abilities are not sufficient to achieve the desired performance. What is additionally needed is employee's soft skills like attitude,

Mindset values, belief and commitment. Thus, competency is the sum of knowledge, skills, attitude and personality of an individual as required performing current and future organizational roles. Competency also denotes motives, self-concept, traits and desired behaviour.

Competency mapping is important and is an essential exercise. Every well-managed firm should: have well defined roles and list of competencies required to perform each role effectively. A competency model is an organizing framework that lists the competencies required for effective performance in a specific job, job family (e.g., group of related jobs), organization, function, or process. Individual competencies are organized into competency models to enable people in an organization or profession to understand, discuss, and apply the competencies to workforce performance.

The competencies in a model may be organized in a variety of formats. No one approach is inherently best; organizational needs will determine the optimal framework.

The competency framework serves as the bedrock for all HR applications. As a result of competency mapping, all the HR processes like talent induction, management development, appraisals and training yield much better results.

Keywords: Job satisfaction, training and development, Performance appraisal, Absenteeism.

BRANCH: -BASIC SCIENCE AND HUMANITIES

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GS 001

TITLE: IMPACT OF PESTICIDES ON THE ENVIRONMENT

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ABSTRACT:

Pesticides are the chemical preparations used for killing animal and fungal pests. The insecticides which are used to kill the insects are spread over the entire agricultural field which results in killing off the non target species also and it is being carried off to other fields affecting other species as well. Due to the repeated use of the pesticides, the pests have become resistant which in turn leads to more usage of chemicals thereby posing threat to the environment. Pesticides have a negative impact on air, water, soil, humans and animals. They cause harm to different species and damage the environment also. However, few methods like crop rotation, clean farming, crop sowing etc. can to some extent help in reducing the harmful effects of the pesticides.

Thanks!

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