

**INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN  
ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY**

**ICEMST-2021**

**29th & 30th January 2021**

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Sri.S.Surender Reddy (Secretary)  
Sri.S.Dhananjay Reddy (Joint Secretary)

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Dr.B.Nageswara Rao-Principal

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Professor & Head, Mechanical Engineering, JNTUH  
Dr. Rajyalaxmi  
Charles Sturt University-Australia  
Dr.P.Sreenivasa Rao  
Case Western Reserve University-USA  
Dr.D.Sucharitha  
Director -AERF  
Prof. Mohd Akbar  
University of Technology and Applied Sciences, Muscat, Sultanate of Oman

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**Smt S. JAYA LAKSHMI**  
**Chairman**

I am extremely happy and feeling honour to associate with **“INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY – ICEMST-2021**. The Conference aims to bring different ideologies under one roof and provide opportunities to exchange ideas face to face, to establish research relations and to find national partners for future collaboration. The themes and sub-themes for this conference are indicative of relevant research areas to give the prospective authors innovative prepositions about the ambit of discussion.

I would like to congratulate **MAHAVEER INSTITUTE OF SCIENCE & TECHNOLOGY** and **ANVESHANA EDUCATIONAL AND RESEARCH FOUNDATION** to conduct such event in systematic way and to disseminate the knowledge to all the corners of the country. Researchers need to carry the ideas presented in this conference to next level and continue their research with good collaborations. I wish the faculty, staff and students of Mahaveer Institute of Science & Technology to conduct such good quality conferences in the future also with standard and quality publications.

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ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY  
ICEMST-2021  
29th & 30th January 2021**



**Sri S. SURENDER REDDY**  
Secretary

On behalf of the Organizing Committee, I have immense pleasure to note that the **Mahaveer Institute of Science & Technology** is organizing the **INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY – ICEMST-2021**, on 29th & 30th January 2021. “ENGINEERING” discipline is one of the fundamental aspects of new inventions and innovations in the field of Electronic, Mechanical, Civil and many other fields. Thus, a Conference meeting organized by *Mahaveer Institute of Science & Technology* will help to develop many aspects in the field of Engineering and many research oriented innovations to the society. I strongly feel that the continued initiatives of *Mahaveer Institute of Science & Technology* will help for the betterment of mankind by organizing such scientific conferences for future research and technical practices in general and in Engineering.

I am sure that the delegates, experts, students, researchers, policy makers and healthcare givers will all tremendously benefit from the deliberation of this Conference in a warm and friendly environment. Your presence and deliberation will make this Conference remarkably successful in all aspects of Engineering.

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ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY**

**ICEMST-2021**

**29th & 30th January 2021**



**Sri S. DHANANJAY REDDY**

Joint Secretary

It's a pleasure to welcome you all to the **INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY–ICEMST-2021** at **Mahaveer Institute of Science & Technology**. The Conference is organized as a set of tracks in the field of Engineering and Technology. The successful organization has required talents, dedication and time for many volunteers and strong support. Special gratitude and appreciation is due for various track chairs as they are primarily responsible for the content of technical program. I would also like to thank the organizing committee and review committee for arranging the Conference. We hope that, you will find the Conference both enjoyable and valuable, and also enjoy the architectural, cultural and natural beauty of greenery in and around the college.

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**ICEMST-2021**

**29th & 30th January 2021**



**Dr.H.S.N.MURTHY**  
**Director, Academics-MIST**

**INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN  
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addresses the issues through the seminar on a vibrant platform for academicians, researchers and industry practitioners from the related areas to share their original research work , practical experience and exhibitions, bringing together representatives of all those involved at every field of business, industry, academic, government and civil.

The International Conference facilitates ideas, statistics, and interpretation and program possibly to solve. The conference will address recent issues and will look for significant contributions to advanced engineering studies in theoretical and practical aspects. It provides a multi-disciplinary forum for the exchange of knowledge and expertise in the recent developments in the fields of Engineering Science and Technology. I am self-assured that your deliberations and the outcome of your efforts will raise public awareness about the role and value technology as a tool to promote economic, social and cultural development while addressing the complex issues on your agenda.

It is my privilege to wish all the delegates a successful techno career and take the special honour to welcome you all to this Conference **ICEMST-2021**. We look forward for key note addresses, invited lectures, paper presentations and audience participation during the Conference.

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ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY  
ICEMST-2021  
29th & 30th January 2021**



**Dr. B. Nageswara Rao  
PRINCIPAL, MIST**

MIST & AERF aims to educate researchers for the future to build and maintain quality oriented research related to Engineering and other domains as well. We believe these researches contribute to make a difference to their Colleges and Universities and to the world around them. In our endeavours, we draw upon reserves of goodwill among the quality oriented research, its reputation among researchers and a potential student, commitment is the key strength to MIST.

Our organization looks forward for being recognized as one of the premier research organization which meets the quality standards across the globe. To achieve this goal, the organization is following a three-pronged approach: connect, nurture and grow.

We will:

CONNECT proactively with the world of practice and policy, with academic work nationally and globally, with our research work, and with the local community.

NURTURE a high performance work environment by emphasizing and supporting a climate of autonomy, stretch, and team work.

GROW our capacity, but do so in a thoughtful and strategic manner, aiming to have an impact commensurate with our ambitions.

**INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN  
ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY**

**ICEMST-2021**

**29th & 30th January 2021**



**Dr. Rajya Lakshmi S.Gaddipati,  
Sessional Lecturer,  
Charles Sturt University Melbourne –Australia.**

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ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY – ICEMST-2021**

addresses these issues through the seminar on a vibrant platform for academicians, researchers and industry practitioners from the related areas to share their original research work, practical experience and exhibitions, bringing together representatives of all those involved in every field of business, industry, academic, government and civil. The International Conference facilitates ideas, statistics, and interpretation and program possibly to solve. The Conference focuses on “Innovative Methods in Engineering Applications, Applied Sciences and Management Cases”. The Conference will address recent issues and will look for significant contributions to advanced engineering studies in theoretical and practical aspects. It provides a multi-disciplinary forum for the exchange of knowledge and expertise in the recent developments in the fields of Engineering Science and Technology. I am self-assured that your deliberations and the outcome of your efforts will raise public awareness about the role and value technology as a tool to promote economic, social and cultural development while addressing the complex issues on your agenda. It is my privilege to wish all the delegates a successful techno career and take the special honour to welcome you all to this International Conference ICEMST-2021. We look forward for key note addresses, invited lectures, paper presentations and audience participation during the Conference.



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ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY  
ICEMST-2021  
29th & 30th January 2021**



**Dr. Srinivasa Rao Penumutthu**  
Case Western Reserve University-USA

I am happy to note that Anveshana Educational and Research Foundation is organizing a conference, “**INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY -ICEMST-2021**” at **Mahaveer Institute of Science & Technology**. I firmly believe that this Conference provides a perfect platform to share the views of the researchers & students, coming from various institutions and provide an opportunity for exchange of ideas. I hope this provides better interaction between various institutes for bilateral relations among student & staff community. I wish the organizers all the best and hope they will conduct similar programmes in future for the benefits of both students and staff.

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ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY  
ICEMST-2021  
29th & 30th January 2021**



**Dr.D. Sucharitha  
Director-AERF**

I am glad to know that AERF is organizing a two-day Conference on “**INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY – ICEMST-2021**” on 29th & 30th Jan 2021 at **Mahaveer Institute of Science & Technology, Hyderabad**. This event would facilitate the people of the World to conquer the innovative methods in engineering applications. The Conference would stand as best platform to share the knowledge and best practices in the Engineering field and implementation of this technology would yield a good result in the industries. This Conference will encourage all the participants to learn from the various distinguished speakers coming from all over the World. I am looking forward to share with you a fruitful knowledge and I wish all the very best from AERF.

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ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY**

**ICEMST-2021**

**29th & 30th January 2021**



**Dr. A V S S Kumara Swami Gupta**

**Professor & Head, Mechanical Engineering, JNTUH,**

“Heights by great men reached and kept were not attained by a sudden flight, but while their companions slept were toiling upward in the night”. The meaning of the above stanza is self-evident, nothing comes from nothing, and nothing ever could. Success and achievements are commensurate with will power, hard work, grit, resourcefulness and single-minded approach. “**Mahaveer Institute of Science & Technology**” understands the social relevance of research and its contribution in developing a body of knowledge and therefore gives immense importance to the research output. In order to encourage the researchers in various fields relating to Engineering, Mahaveer Institute of Science & Technology is organizing the National Level Conference in association with Anveshana Educational and Research Foundation with different contemporary themes on a regular basis. The focus here is on blend of academics & cutting edge research and innovation through inter-disciplinary activities. A saying goes like this “Ordinary things done in an extraordinary way make people great”. I hope that the deliberations in the Conference will help researchers from academia and industry and the Conference will provide a platform for initiating collaborative research projects. I wish the Conference a fabulous success.

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ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY  
ICEMST-2021  
29th & 30th January 2021**



**Dr. G. Srikanth Reddy  
Convener-ICEMST**

I hope this message finds you and your family in the best of health and spirits. It was nice to hear you have presented in National Conference. It was really a delight to hear that it has been fairing well in the field of Engineering Applications and Basic Sciences.

**“INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY–ICEMST-2021”** addresses these issues through the seminar and exhibitions, bringing together representatives of all those involved in every field of business, industry, academic, government and civil.

I must congratulate you on attending and presenting a research paper. This Conference is going to address many issues. I wish all the delegates a successful techno career and take the privilege to welcome you all to this International Conference **ICEMST-2021**. In this moment of celebration I congratulate one and all who involved in Conference.

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ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY  
ICEMST-2021  
29th & 30th January 2021**



**Dr. M.VASANTHA LAXMI  
Co-Convener-ICEMST**

**“INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY – ICEMST-2021”** addresses these issues through the seminar and presentations, bringing together representatives of all those involved in every field of business, industry, academic, government and civil strata. The National Conference facilitates ideas, information and programs on a platform that encourages creative thinking and innovation in the fields mentioned in the theme of the program. I congratulate the organizers, coordinators sponsoring members, participants of the National Conference and I am confident that the deliberations and the outcomes of your efforts will raise public awareness about the role and value of the theme of the Conference as a tool to promote economic, social and cultural development while addressing the complex issues on the agenda. I wish all the members involved a successful program ahead.

**INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN  
ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY  
ICEMST-2021  
29th & 30th January 2021**

**INDEX**

<b>Paper ID</b>	<b>Title &amp; Author</b>	<b>Page No</b>
<b>CHEM001</b>	<b>STRUCTURAL INSIGHTS INTO G-TRACT RECOGNITION BY THE HNRNP H- RNA RECOGNITION MOTIF SRINIVASA R. PENUMUTCHU</b>	<b>24</b>
<b>MBA002</b>	<b>REWARD AND RECOGNITION MANAGEMENT: A STRATEGIC PERSPECTIVE Prof. A. SURYANARAYANA Dr. B. MOHAN KUMAR</b>	<b>26</b>
<b>MECH003</b>	<b>ANALYSIS OF DYNAMIC RESPONSE IN HYDROLIC EQUIPMENT WORKING WITH HEAVY LOADS SHARANAGOUDA HADIMANI Dr.G.R.SELOKAR Dr.G NAGESHWAR RAO</b>	<b>28</b>
<b>CSE004</b>	<b>RECENT CHALLENGES OF NEW TECHNOLOGIES IMPLEMENTATION IN INDUSTRIAL WORLD Dr. ABDALLA ALAMEEN</b>	<b>29</b>
<b>MBA005</b>	<b>EFFECTIVELY NAVIGATING THE CLASSROOM FOR MAKING LASTING LEARNING EXPERIENCES IN HIGHER EDUCATIONAL INSTITUTIONS: SOME REFLECTIONS Prof. A. SURYANARAYANA Dr. SMITHA SAMBRANI</b>	<b>30</b>
<b>IT006</b>	<b>ADVANCED CRYPTOGRAPHIC APPROACH FOR IMPROVING SECURITY OF RESOURCE RESERVED MOBILE DEVICE OUTSOURCED DATA IN CLOUD COMPUTING Dr. A.NANDA GOPAL REDDY D.SWATHI</b>	<b>31</b>
<b>IT007</b>	<b>A UNIQUE TESTING NAMED METAMORPHIC TESTING FOR SOFTWARE QUALITY, VERIFICATION, VALIDATION AND QUALITY ASSESSMENT: AN APPROACH TO SEARCH ENGINES K.B.V.K.NAGASREE V.NARESH KUMAR REDDY</b>	<b>32</b>
<b>IT008</b>	<b>ASSESEMENT WEB SECURITY AND DATA SECURITY ON PRIVATE CLOUD COMPUTING</b>	<b>33</b>

**INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN  
ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY**

**ICEMST-2021**

**29th & 30th January 2021**

	DEVENDHAR NAYINI K.PRIYANKA	
<b>IT009</b>	<b>IPATH-PATH REDUCTION IN WIRELESS SENSOR NETWORK</b> S.SUNIL R.KESHAVAIAH	<b>34</b>
<b>IT010</b>	<b>PREEMPTIVE ASSESSMENT THROUGH INFORMATION SECURITY PERCEPTION</b> SIDDI SRINIVAS BADEPALLY MALLAIAH	<b>35</b>
<b>CSE011</b>	<b>RECENT ADVANCEMENT AND ROLE OF SEARCH ENGINES IN INFORMATION RETRIEVAL SYSTEM</b> SWAPNA MANDALA G.SOWJANYA	<b>36</b>
<b>CSE012</b>	<b>ANALYSIS ON GRAPHICAL PASSWORD AUTHENTICATION TECHNIQUES</b> M.SRIVIDYA G .MANASA	<b>37</b>
<b>CSE013</b>	<b>ANALYSIS OF DATA GOVERNANCE IN BLOCKCHAIN-BASED SYSTEMS</b> B. SEVA NAIK M.SREENIVAS REDDY	<b>38</b>
<b>CSE014</b>	<b>A NOVEL FOR ANALYZING AND RECOGNITION OF TWITTER ACCOUNTS</b> R.NAVEEN KUMAR N.ASHWAN KUMAR	<b>39</b>
<b>CSE015</b>	<b>ONLINE VOTING USING BLUETOOTH ENABLED MOBILE PHONE</b> A.SARALA DEVI MUNEER AHMED	<b>40</b>
<b>CSE016</b>	<b>ADAPTABLE SUBSPACE CLUSTERING COMBINE APPROPRIATE SELECTION AND K-MEANS CLUSTERING FRAMEWORK</b> J.MADHAVI K GIRI BABU	<b>41</b>
<b>IT017</b>	<b>PREEMPTIVE ASSESSMENT THROUGH INFORMATION SECURITY PERCEPTION</b> SIDDI SRINIVAS BADEPALLY MALLAIAH	<b>42</b>

**INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN  
ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY**

**ICEMST-2021**

**29th & 30th January 2021**

<b>CSE018</b>	<b>MULTI-ASCENDANCY DATA IN PUBLIC CLOUD-STORAGE USING ATTRIBUTE BASED ENCRYPTION WITH TRUSTED SHARING</b> MOHAMMED SIDDIQUE G SANTOSH KUMAR K SUDHAKAR	<b>43</b>
<b>CSE019</b>	<b>SPEED UP OF SOFTWARE DEVELOPMENT USING OBJECT ORIENTED DESIGN PATTERNS</b> MR. PABBOJU RAMESH DR. R.NAKKEERAN	<b>44</b>
<b>CSE020</b>	<b>EFFICIENT SENSOR DATA TRANSMISSION TO THE IOT APPLICATIONS USING MQTT-SN AND MQTT</b> MR. M.OBULA REDDY MR. M.SRINU	<b>45</b>
<b>CSE021</b>	<b>DATA AGGREGATION ALGORITHMS IN WIRELESS SENSOR NETWORKS: A REVIEW</b> MR. PABBOJU RAMESH DR. R.NAKKEERAN	<b>46</b>
<b>ECE022</b>	<b>ARTIFICIAL INTELLIGENCE/MACHINE LEARNING IN DATABASE MANAGEMENT TOOLS</b> PUSHKARINI SAMMETA	<b>47</b>
<b>ECE023</b>	<b>DESIGN AND IMPLEMENTATION OF MONITORING AND ALERTING ELECTRICAL LINE SYSTEM</b> Dr.SANDHYARANIM MURALI SAGGARLA	<b>48</b>
<b>ECE024</b>	<b>MICROSOFT DATABASES SERVICES</b> KOMAL GARGI THODATI	<b>49</b>
<b>ECE025</b>	<b>IMPLEMENTATION AND ANALYSIS OF CONVOLUTION ENCODER ON FPGA</b> PUJARI SRIDHAR DR.C.R. BYRAREDDY	<b>50</b>
<b>ECE026</b>	<b>ANALYSIS OF VARIOUS REVERSIBLE LOGIC GATES USING MENTOR GRAPHICS TOOLS</b> K.VENKATESWARLU S.SOUJANYA Dr. JASPAL KUMAR	<b>51</b>
<b>ECE027</b>	<b>EFFICIENT SENSOR DATA TRANSMISSION TO THE IOT APPLICATIONS USING MQTT-SN AND MQTT</b>	<b>52</b>



**INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN  
ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY**

**ICEMST-2021**

**29th & 30th January 2021**

	M.OBULAREDDY M.SRINU	
ECE028	<b>DATABASE DESIGN FOR REMOTE HEALTH MONITORING SYSTEM</b> SUNITHA DASARI RAVI KUMAR RAYALA	<b>53</b>
ECE029	<b>CELL PHONE BASED WIRELESS SENSOR NETWORKS FOR SOCIAL FIDELITY VIA COOPERATIVE DATA SHARING</b> M.CHEENYA B.SRINU	<b>54</b>
ECE030	<b>AN APPRAISAL OF DIFFERENT TECHNIQUES OF DATA AGGREGATION IN WIRELESS SENSOR NETWORKS</b> M.D.RAJU	<b>56</b>
ECE031	<b>CYBER CRIME &amp; CYBER SECURITY-LATEST TRENDS</b> DR.V.GUNASEKHAR REDDY	<b>57</b>
ECE032	<b>ANALYSIS AND COMPARISON OF REVERSIBLE HYBRID FULL ADDER/FULL SUBTRACTOR AND CONVENTIONAL FULL ADDER &amp; FULL SUBTRACTOR</b> K.VENKATESWARLU S.KIRPAL KOUR Dr. JASPAL KUMAR	<b>58</b>
ECE033	<b>FULL ADDER ANALYSIS USING FINFET TRANSISTORS</b> K.ARCHANA Dr. JASPAL KUMAR	<b>59</b>
ECE034	<b>STUDY OF PROPAGATION EFFECTS ON WIRELESS COMMUNICATION SIGNALS AT RADIO FREQUENCY</b> R.PRABHAKAR R.PRIYANKA	<b>60</b>
CIVIL035	<b>MULTI OBJECTIVE OPTIMIZATION OF REINFORCED CEMENT CONCRETE RETAINING WALL</b> MAMIDI SAI KUMAR SAGAR B. RAMANA KUMAR	<b>61</b>

**INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN  
ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY**

**ICEMST-2021**

**29th & 30th January 2021**

<b>CIVIL036</b>	<b>THE STUDY OF MANAGEMENT AND CONTROL OF WASTE CONSTRUCTION MATERIALS IN CIVIL CONSTRUCTION AT AMBERPET AREA, HYDERABAD, TELANGANA CH.SWETHAMBER G. PRABHAKAR</b>	<b>62</b>
<b>CIVIL037</b>	<b>CHALLENGES OF MUNICIPAL SOLID WASTE MANAGEMENT IN HYDERABAD METROPOLITAN CITY Dr.M.VASANTHA LAXMI</b>	<b>63</b>
<b>CIVIL038</b>	<b>PARTIAL REPLACEMENT OF COURSE AGGREGATE WITH CERAMIC TILES IN CONCRETE K. SAIPRADEEP PANASA ANIL</b>	<b>64</b>
<b>CIVIL039</b>	<b>STRENGTH PROPERTIES OF RECYCLED AGGREGATE CONCRETE - CONVENTIONAL CONCRETE AND SELF-COMPACTING CONCRETE B. VARALAXMI CH. HEMALATHA</b>	<b>65</b>
<b>CIVIL040</b>	<b>A REVIEW ON PERFORMANCE EVALUATION OF PELTON TURBINE L.JYOTHI G.ARUNA</b>	<b>66</b>
<b>MBA041</b>	<b>COST-BENEFIT ANALYSIS ON IMPLEMENTATION OF GREEN BANKING TECHNIQUES IN INDIAN BANKING INDUSTRY (w.r.t. ATM's) Ms. B.PRAMODA HOLLY STAR Ms. SHAIK SANA SULTANA</b>	<b>67</b>
<b>MBA042</b>	<b>TO CREATE MORE ACCOMPLISHMENT IN MANAGING EMOTIONAL INTELLIGENCE AND ITS RELATIONSHIP WITH LEADERSHIP SKILL PRACTICES G.KISHORE KUMAR RAGHUNATH REDDY.CHALLA</b>	<b>68</b>
<b>MBA043</b>	<b>ORGANISATIONAL TRANSFORMATION: A NEW ORIENTATION THROUGH TECHNOLOGY IN DIGITAL REALM</b>	<b>69</b>

**INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN  
ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY**

**ICEMST-2021**

**29th & 30th January 2021**

	L. RAJESH GOUD K. S. ARCHANA	
<b>MBA044</b>	<b>A STUDY OF RECENT TRENDS IN WOMEN ENTREPRENEURSHIP</b> Dr. KIRAN KUMAR KOTHA	<b>70</b>
<b>MECH045</b>	<b>STUDY OF UNCONVENTIONAL MACHINING PROCESSES</b> P.DURGA RAVIPRASAD	<b>71</b>
<b>MECH046</b>	<b>COMPARATIVE EXPERIMENTAL WORK FOR DIFFERENT CARBIDE TOOLS TO IMPROVING QUALITY</b> T. SHAHINSHA A. NARAYANA MURTHY	<b>72</b>
<b>MECH047</b>	<b>FABRICATION OF RECORD AND PLAY ROBOTIC ARM USING 3D PRINTER</b> SHRAVANKUMAR MOHAMMAD. SAZZAD	<b>73</b>
<b>MECH048</b>	<b>COMPARATIVE ANALYSIS OF DIFFERENT MATERIAL HANDLING EQUIPMENTS</b> SANTHOSH KUMAR DEVARAJU G.K.SHANMUKH DEV	<b>74</b>
<b>MECH049</b>	<b>OPTIMIZATION RESISTANCE SPOT WELDING PARAMETERS BY TAGUCHI METHOD TO IMPROVE WELD QUALITY</b> M.NARSIMHA FAIZ ALI	<b>75</b>
<b>MECH050</b>	<b>TIG WELDING PROCESS PARAMETERS OPTIMIZATION FOR STAINLESS STEEL MATERIALS USING REGRESSION ANALYSIS</b> MACHARLA ANIL P.PRAVEEN KUMAR REDDY	<b>76</b>
<b>MECH051</b>	<b>THERMO ACOUSTIC REFRIGERATION SYSTEM FOR USE IN SPACE TECHNOLOGIES</b> G.BHAVANI KETHAVATH. GOPAL	<b>77</b>
<b>MECH052</b>	<b>STUDY OF WORN TOOL MACHINING PROCESS IN CLIMB AND CONVENTIONAL MILLING</b> Dr.G SRIKANTH REDDY Dr. ASHISH NARAYAN	<b>78</b>

**INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN  
ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY**

**ICEMST-2021**

**29th & 30th January 2021**

<b>MECH053</b>	<b>GO-KART VEHICLE CHASSIS MODIFICATION USING ANSYS K. DEVISINGH M. SONACHALAM</b>	<b>79</b>
<b>MECH054</b>	<b>DESIGN AND STRUCTURAL ANALYSIS OF BRAKE DISC BY VARYING BRAKE PRESSURE B.VENKATESWAR REDDY P.PRAVEEN KUMAR REDDY</b>	<b>80</b>
<b>MECH055</b>	<b>SOLAR POWER OPERATED GRASS CUTTER AND PESTICIDES SPREADER ROBOT NAGESWAR .B E. KRISHNA DEEPAK</b>	<b>81</b>
<b>EEE056</b>	<b>IMPROVED UPQC WITH STATCOM FOR GRID VOLTAGE REGULATION BY USING FUZZY LOGIC CONTROLLER Dr.M.SUDHAKARAN, M.RAJESH SAGAR</b>	<b>82</b>
<b>EEE057</b>	<b>FLEXIBLE CONTROL SCHEME FOR A DYNAMIC VOLTAGE RESTORER FOR POWER-QUALITY IMPROVEMENT B. SATHISH, N. SARASWATHI</b>	<b>83</b>
<b>EEE058</b>	<b>TRANSIENTS STABILITY IMPROVEMENT OF IEEE 10-BUS SYSTEM BY USING ASVC R.KALYANI, T. HIMA BINDU</b>	<b>84</b>
<b>EEE059</b>	<b>SIMULATION AND DESIGN OF COMPACT INTEGRATED CONVERTERS MOTOR DRIVES FOR ELECTRIC VEHICLE, HYBRID ELECTRIC VEHICLE APPLICATIONS MOHAMMED MASOOD</b>	<b>85</b>
<b>EEE060</b>	<b>AC-DC CONVERTER BASED HARMONIC MITIGATOR FOR VECTOR CONTROLLED INDUCTION MOTOR DRIVES Dr.M.SUDHAKARAN, G.JYOTHI</b>	<b>86</b>
<b>EEE061</b>	<b>AN AUTONOMOUS PV-WIND-BATTERY BASED MICRO GRID OPERATED IN STANDALONE AND GRID-CONNECTED MODE JYOTHIR MAI, B.DIVYA</b>	<b>87</b>
<b>EEE062</b>	<b>A HIGH EFFICIENCY INDIRECT MATRIX CONVERTER BY USING RB-IGBTS G.HATHIRAM B.SRINIVASULU</b>	<b>88</b>

**INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN  
ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY**

**ICEMST-2021**

**29th & 30th January 2021**

<b>EEE063</b>	<b>DEVELOPMENT OF POLYMER SURGE ARRESTERS COVERING MV, HV, EHV &amp; UHV K S BHARGAVI TASKEEN AYESHA</b>	<b>89</b>
<b>EEE064</b>	<b>IMPLEMENTATION OF SVPWM TECHNIQUE TO VOLTAGE AND CURRENT SOURCE INVERTER Dr. M.RAJENDAR REDDY G.PREMKUMAR REDDY</b>	<b>90</b>
<b>MBA065</b>	<b>PROMINENCE OF PAY IN OVERALL HR STRATEGY:A CATALYST FOR CHANGE Prof. A. SURYANARAYANA Dr. RAVI ALUVALA</b>	<b>91</b>
<b>MBA066</b>	<b>MOTIVATION AND REWARD MANAGEMENT: AN EMPIRICAL STUDY WITH REFERENCE GREYHOUNDS K. SUDARSHAN REDDY Prof. B. KRISHANA REDDY</b>	<b>92</b>
<b>H&amp;S067</b>	<b>EFFECT OF HERBICIDES ON MYCOFLORA OF RICE FIELD SOILS Dr. S. RAVINDER REDDY RAJENDRA GOUD</b>	<b>94</b>
<b>H&amp;S068</b>	<b>GENERALIZATION OF RHODES THEOREM TO A SEQUENCE OF SELF MAPS DR. SUJATHA KURAKULA, MAHENDRA VARMA P</b>	<b>95</b>
<b>H&amp;S069</b>	<b>GLOBALIZATION: ITS IMPACT ON THE USE OF ENGLISH LANGUAGE DR. M. PRATIBHA</b>	<b>96</b>
<b>H&amp;S070</b>	<b>MOLECULAR COMPLEXES OF ROSUVASTATIN CALCIUM WITH -ACCEPTORS DEEPTHI K SWAPNA.K,</b>	<b>97</b>
<b>H&amp;S071</b>	<b>VERTICAL CHARACTERISTICS OF MARINE BOUNDARY LAYER OVER PALAU K MADHUSUDHANA, K MADHAVA RAO</b>	<b>98</b>
<b>H&amp;S072</b>	<b>APPLICATIONS OF SURFACE INTEGRALS IN FLUID DYNAMICS PRAKASH N</b>	<b>99</b>
<b>H&amp;S073</b>	<b>ENGLISH COMMUNICATION CONVERTS INTO POWERFUL EXPRESSION A. YELLAIAH</b>	<b>100</b>
<b>H&amp;S074</b>	<b>ULTRASONIC VELOCITY MEASUREMENT ON FRUIT SYRUP P.SRINIVAS KUMAR,K.MADHAVI E.GOVINDARAJACHARYULU D.LINGA REDDY</b>	<b>101</b>
<b>H&amp;S 075</b>	<b>COMMUNICATION SKILLS IN EMPLOYABILITY OPPORTUNITIES</b>	<b>102</b>

**INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN  
ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY  
ICEMST-2021  
29th & 30th January 2021**

	M. JAYASREE G.P.RAGINI	
<b>BF076</b>	<b>SURVEY ON COVID-19 PATIENTS AND ON THE VACCINATED INDIVIDUALS</b> Dr. RAJYA LAKSHMI .S.GADDIPATI	<b>103</b>
<b>MECH077</b>	<b>MANUFACTURING OF BRICKS FROM COFFEE, CRUSHED GLASS AND CLAY USING GEO-POLYMERISATION TECHNIQUE AT 200C, 110C</b> AKHIL BOLLIKONDA	<b>104</b>
<b>ENG078</b>	<b>THE ROLE OF VERBAL LINGUISTIC INTELLIGENCE IN ESL LEARNER'S ACADEMIC PERFORMANCE AT UNDERGRADUATE LEVEL</b> KOPPULA UJWALA, KESETTY MAMATHA GOPAGONI PRASHANTHI	<b>105</b>
<b>AE079</b>	<b>FINITE ELEMENT ANALYSIS OF AIRCRAFT WING USING CARBON FIBER REINFORCED POLYMER</b> A.RANGA REDDY, D.NAVEEN	<b>106</b>
<b>AE080</b>	<b>COMPUTATIONAL ANALYSIS OF A TRUSS TYPE FUSELAGE</b> N.MAHESH, Dr. R. DINESH KUMAR	<b>107</b>
<b>AE081</b>	<b>FEM ANALYSIS OF FUSELAGE SKIN USING GLASS FIBER REINFORCED POLYMER</b> G. SUDERSAN, V.MALLESH	<b>108</b>
<b>AE082</b>	<b>STATIC STRESS ANALYSIS &amp; NORMAL MODE ANALYSIS OF HORIZONTAL TAIL STRUCTURE</b> R.RAJENDAR, M.THIRUPATAIAH	<b>109</b>
<b>MBA083</b>	<b>GOODS AND SERVICE TAX-PERCEPTIONS OF SMALL &amp; MEDIUM BUSINESSES (WITH SPECIAL REFERENCE TO NALGONDA DISRICT)</b> ALUGUBELLY SWAPNA	<b>110</b>
<b>CSE084</b>	<b>A SECURED IOT INFRASTRUCTURE USING BLOCKCHAIN DECENTRALIZED APPROACH</b> Ms. K. NAGA MAHA LAKSHMI, Ms. M. VIJAYA LAXMI, Dr. T. R. SRINIVAS	<b>111</b>
<b>MECH085</b>	<b>ANALYSIS OF THE SPRAYING PROCESS IN THERMAL POWER PLANTS</b> SHRAVANKUMAR DR.G.R.SELOKAR & DR.B NAGESHWAR RAO	<b>112</b>
<b>MECH086</b>	<b>COMPREHENSIVE REVIEW ON KINEMATIC ANALYSIS AND APPLICATIONS OF ROBOT MANIPULATORS</b> KURA ABHISHEK & SHAIK HIMAM SAHEB	<b>113</b>
<b>MBA087</b>	<b>MANAGING AND MAKING VIRTUAL INTERNSHIP PROGRAMS WORK DURING THE PANDEMIC TIMES</b> Dr. CHANDRA SEKHAR PATNAIK & Prof. A. SURYANARAYANA	<b>114</b>
<b>MBA088</b>	<b>DISCOVERING TRENDING NEW TOPICS FROM SOCIAL MEDIA</b> Jongoni Srikanth, Dr. M. Laxmaiah	<b>115</b>
<b>CSE089</b>	<b>UNDERSTANDING A PRIVATE CLOUD AS A PROPRIETY NETWORKS FOR HOSTED SERVICE AT PUBLIC LEVEL AND PRIVATE LEVEL</b> Prof. Mohd Akbar	<b>116</b>
<b>EVS090</b>	<b>STUDY OF CONTAMINANTS INDEX OF MUSI RIVER</b>	<b>117</b>

**INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN  
ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY**

**ICEMST-2021**

**29th & 30th January 2021**

	<b>COMMAND AREA</b> Mohammed Zakir Hussain	
<b>MGMT091</b>	<b>INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN ENGINEERING, MANAGEMENT, SCIENCE AND, TECHNOLOGY</b> Dr. Nagunuri Srinivas & Prof. A. Suryanarayana	<b>118</b>
<b>ENG092</b>	<b>AN INTERACTIVE MAP REDUCE BASED ON SUBGRAPH MINING ALGORITHM</b> Jagannadha Rao D B, Dr. K. E. BalaChandrudu, Dr. Prasadu Peddi	<b>119</b>
<b>ECE093</b>	<b>PERFORMANCE EVALUATION HYBRID PRECODING FOR 6G TERAHERTZ WIRELESS TECH-ERA</b> G. Jagga Rao Dr.Y. Chalapathi Rao Dr. Anupama Desh Pande	<b>120</b>
<b>MGMT094</b>	<b>WOMEN ENTERPRENEURESHIP IN INDIAN</b> D. Gnyaneswer & Sreeram Daida	<b>121</b>
<b>MGMT095</b>	<b>MARKETING STRATEGIES OF MINING AND DRILLING INDUSTRY DURING PANDEMIC COVID'19</b> K.Govinda Reddy Dr.J.V.Rangeswara Reddy	<b>122</b>
<b>MECH1096</b>	<b>ENHANCEMENT OF GAS TURBINE BLADES AFTER THERMAL COATING WITH YSZ- EXPERIMENTAL STUDY</b> K.Chandra Sekhar & B.Sudheer Prem Kumar	<b>123</b>
<b>MECH1097</b>	<b>AERODYNAMIC SHAPE OPTIMIZATION OF A VERTICAL AXIS WIND TURBINE NACAXXX SERIES</b> MOHD HASHAM ALI,DR.SYED NAWAZISH MEHDI,DR.M.T. NAIK	<b>124</b>
<b>MGMT1098</b>	<b>A FRAME WORK MODEL FOR EFFICIENT JOB SCHEDULING AND HANDLING VARIOUS JOBS WITHOUT STARVATION</b> G.Suhasini & Dr. P.Niranjana	<b>125</b>
<b>ENGG1099</b>	<b>METHODS OF HIDDEN PATTERN USAGE IN CLOUD COMPUTING SECURITY STRATEGIES WITH K- MEANS CLUSTERING</b> Swathi Priyadarshini, Dr. S. Ramachandram	<b>126</b>
<b>MGMT1100</b>	<b>SOCIAL ISOLATION AND FAMILY-TO-WORK CONFLICT DURING WORK-FROM-HOME IN RECENT PANDEMIC: MEDIATING ROLE OF EMOTIONAL INTELLIGENCE</b> Dr. V. Venkateshwarlu	<b>127</b>
<b>ENGG1101</b>	<b>EXPERIMENTAL STUDY ON EFFECT OF SALT HYDRANTS ON FLAX AND COIR FBRE DEGRADATION</b> P.R.C.Kumar & B.S.R.K.Prasad	<b>128</b>

**INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN  
ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY**

**ICEMST-2021**

**29th & 30th January 2021**

**STRUCTURAL INSIGHTS INTO G-TRACT RECOGNITION BY THE HNRNP H-  
RNA RECOGNITION MOTIF**

**Paper ID - CHEM001**

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**ABSTRACT**

The heterogeneous nuclear ribonucleoprotein H (hnRNP H/F) family of proteins are involved in RNA splicing of cellular and viral mRNAs. These proteins function as both splicing activators and repressors. The hnRNP H/F family proteins have previously been found to interact with poly-G sequences (G-tracts) of cellular and viral mRNAs using quasi RNA recognition motifs (qRRMs) including human immunodeficiency virus (HIV). hnRNP H/F proteins are composed of three qRRMs, which are separated by linkers and two Glycine rich domains at C-terminal. The qRRM1 and qRRM2 domains are located at the N-terminus and separated by 10-residue linker, whereas qRRM3 is located towards the C-terminus. A significant difference occurs in qRRM12 of hnRNP H/F at position 105 of the linker, where hnRNP H contains a proline and hnRNP F an alanine. To investigate the influence of P105 on the conformational properties of hnRNP H, here we solved the solution structure of the HRRM12 domain of hnRNP H using NMR spectroscopy and X-ray crystallography. We used paramagnetic relaxation enhancement (PRE) and Residual dipolar couplings (RDC) to obtain distance restraints and orientation restraints between the HRRM1 and HRRM2 domains. T1, T2 and NOE experimental data is consistent with calculated structure of HRRM12 domain and reveals that HRRM12 exist as closed conformations. Comparison of NMR relaxation parameters, including Carr–Purcell–Meiboom–Gill (CPMG) relaxation dispersion, between HqRRM1,2 and FqRRM1,2 indicates that FqRRM1,2 primarily adopts a more extended and flexible conformation. Introducing the P105A mutation into HqRRM1,2 alters its conformational dynamics to favor an extended structure. Further we characterized the open and close populations of HRRM1&2 by SAX experiments. To better understand principals of hnRNP H-RNA recognition, we systematically screened G-tracts of RNA oligos against HRRM12 by using isothermal titration calorimetry (ITC) and NMR spectroscopy. *We examined the minimal G-tract RNA (--GGG--) sequence requirements for HRRM12 binding.*



**INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN  
ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY  
ICEMST-2021  
29th & 30th January 2021**

The HRRM12 domain of hnRNP H exhibited substantial differences in binding affinities for G-tracts of RNA (AGGGX, X: A,C,U) with AGGGG and HRRM12 residues involved in binding G-tracts of RNA were detected by NMR chemical shift perturbation experiments and a data-driven model of the complex was determined using HADDOCK. Thus, our work demonstrates that the linker compositions confer different structural properties between hnRNP F/H family members that might contribute to their functional diversity.

**INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN  
ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY  
ICEMST-2021  
29th & 30th January 2021**

**REWARD AND RECOGNITION MANAGEMENT: A STRATEGIC PERSPECTIVE**

**Paper ID - MBA002**

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**ABSTRACT**

It is an indisputable and well established fact that ‘management of reward’ can be a source of competitive advantage. While there have been well established approaches, we also witness newer developments in the management of reward function. It has also been reported that the impact of compensation strategy equaled the combined effect of all other aspects of HR Systems involving high involvement, training programs, teams, etc. After all, rewards and recognition do matter. Compensation professionals do welcome such research evidence and best practices such as merit-based incentives and other options that are broadly based. But it requires the HR professionals to take a strategic perspective to view and examine the way the employees are compensated for in their respective organizations. For this, we need to understand the very fundamental premise of this strategic perspective itself.

Innovative business organizations have a greater chance to gain a competitive edge if they succeed in design and keep the reward related decisions in sync with their strategies and core values to become globally competitive. To achieve this, they are also expected to become and remain sensitive to the relations with the employees and their associations. To make competitive advantage larger, the ‘fit’ between the business environment, overall corporate strategy, and reward policies and plans should be made better. So, what matters most is to be able identify and come up with a reward strategy that best fits every conceivable context or, at least, to come up with a set of best practices that truly represents the ‘best’. In this context, unfortunately, the empirical studies that have researched into the competing viewpoints are few in number and research evidence is scanty. So, we need to welcome and comprehend any kind of research that takes us beyond the rhetoric.

We live in the very much interesting post-Corona times—the new normal, so to say. Globally, we are witnessing serious economic upheavals and harsh social pressures and hardships. They are compelling the HR practitioners to revisit and rethink their traditional approaches. They were compensating their people as they do make a material difference to the overall efficacy of the business firms. To make the reward management practices truly

**INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN  
ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY  
ICEMST-2021  
29th & 30th January 2021**

evidence-based, they need to cull out the beliefs from the facts, wishful thinking from the demonstrable results, and personal opinions from hard research results. Indisputably, the strategic choices that are present and possible in managing the reward function do confront and challenge the managers in India and those around the globe.

**Keywords:** Competitive Advantage; Strategic Perspective; Reward Management; Total Reward Model.

**INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN  
ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY**

**ICEMST-2021**

**29th & 30th January 2021**

**ANALYSIS OF DYNAMIC RESPONSE IN HYDROLIC EQUIPMENT WORKING  
WITH HEAVY LOADS**

**Paper ID - MECH003**

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**ABSTRACT**

Great unique reaction is the vital factor of the water driven control arrangement of the cutting framework. As per building up the numerical model of the water powered segments and PC recreation, the dynamic reaction can be noticed quickly. And afterward the plan can be streamlined by changing the comparing boundaries advantageously. Besides, we can likewise anticipate the framework reaction ahead of time and expert the dynamic trademark. The two of them can supplies the hypothetical reason for the plan of the water driven control arrangement of the cutting framework. The time reaction of the determined burden can be anticipated by mimicking the dynamic model. It's infeasible to break down the water powered control framework precisely because of the extraordinary property of the liquid and the non-linearity of the pressure driven control framework. Notwithstanding, the outcomes can meet with the designing prerequisites by making the non-straight framework direct. Simultaneously, it is assumed that the pipelines are short, and the idleness of the liquid in the pipeline and liquid opposition can be dismissed. The help valve can be viewed as static segment without thinking about the impact of the liquid capacitance.

**Keywords:** Hydraulic, Dynamic Response, Machine, Pascal's Principle.

**INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN  
ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY  
ICEMST-2021  
29th & 30th January 2021**

**RECENT CHALLENGES OF NEW TECHNOLOGIES IMPLEMENTATION IN  
INDUSTRIAL WORLD**

**Paper ID - CSE004**

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**ABSTRACT**

Within the world of business information modeling, viable utilization of accessible innovation is a resource. Because of general intricacy of data innovation executions, troubles happen.

To pick an innovation for organization's next lead apparatus, the street is normally long and rough. This paper aims on introducing and analyzing the wide range of obstacles generated by customers, company's own organization, social behavior and immature technologies in construction engineering industry. This study serves as a base study for future tool creation to manage better BIM technology implementations.

**INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN  
ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY  
ICEMST-2021  
29th & 30th January 2021**

**EFFECTIVELY NAVIGATING THE CLASSROOM FOR MAKING LASTING  
LEARNING EXPERIENCES IN HIGHER EDUCATIONAL INSTITUTIONS:  
SOME REFLECTIONS**

**Paper ID - MBA005**

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**ABSTRACT**

In Higher-educational Institutions (HEIs), educators are perpetually confronted with the challenge of making a meaningful and lasting learning experience for the student-learners. In this context, it becomes an imperative to create connections between the learning odyssey and their respective lives. To make education truly purposeful, two critical conditions to be fulfilled are (i) acknowledgement of the fact that meaningful knowledge must be valued and (ii) an acceptance of the linkage between education and its impact on human lives to make a positive difference. Demonstrating the influence of invaluable knowledge in human life is critical in making education meaningful. Fostering curiosity, critical thinking, and imagination make learning satisfying as well. Connecting the content with its meaning and to make learning 'stick', self-testing should replace forthwith rote memorization and rote learning. Immersive teaching-learning process and pedagogical techniques should facilitate memory and effective application of learning received by the students. Examining the theoretical paradigms becomes a necessary preliminary for stimulating critical thinking in the minds of the learners that would be of immense use later in their careers. In a knowledge ecosystem model, we need to accept and appreciate the distinction between 'education' and 'learning'. Helping the learners function better in future should ideally remain the overarching goal of learning. Learning experiences are required to be designed by involved students to ensure that the learning outcomes are dovetailed with lesson objectives and are grasped by the students through an immersion process. They assist students in understanding where they want to go in life and how they want to make a difference. An attempt is made in this Paper to suggest ways and means to the educators to effectively navigate the classroom so that comprehension and learning are enhanced and meaningful learning experiences are gained by the students using their prior knowledge and personal experience.

**Keywords:** Education vs. Learning, Higher-education Institutions (HEIs), Teaching-Learning Process, Learning experiences.

**INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN  
ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY**

**ICEMST-2021**

**29th & 30th January 2021**

**ADVANCED CRYPTOGRAPHIC APPROACH FOR IMPROVING SECURITY OF  
RESOURCE RESERVED MOBILE DEVICE OUTSOURCED DATA IN CLOUD  
COMPUTING**

**Paper ID - IT006**

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**ABSTRACT**

Mobile cloud computing in the increasing popularity among users of mobile device enables to store their data in cloud. Security is the major concern when the sensitive information is stored and transferred across the internet. It is essential to make sure that the data is secured and protected. The problem of privacy of data with reducing the resources usage. Moreover, mobile cloud computing has limitations in resources such as power energy, processor, Memory and storage. Cryptography ensures the confidentiality, authentication, availability, and integrity of the data. This is done through cryptographic algorithms such as Data Encryption Standard (DES), Blowfish and Advanced Encryption Standard (AES). The experimental results evaluated and compared the performance of the encryption algorithms. The performance metrics used are encryption and decryption time, CPU and Memory utilization. Evaluation results showed a significant improvement in reducing the resources, amongst all the techniques, choosing a suitable encryption algorithm based on different parameters that are best fit to the future user requirements is considered.

**Keywords:** Mobile Cloud Computing, Blowfish, AES, Security, Privacy, Mobile Device.

**INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN  
ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY**

**ICEMST-2021**

**29th & 30th January 2021**

**A UNIQUE TESTING NAMED METAMORPHIC TESTING  
FOR SOFTWARE QUALITY, VERIFICATION, VALIDATION AND  
QUALITY ASSESSMENT: AN APPROACH TO SEARCH ENGINES**

**Paper ID - IT007**

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**ABSTRACT**

A Unique Testing named Metamorphic testing is a technique used to identify the functional conformity of software in the deficit of an ideal oracle. This paper enhances metamorphic testing into a user friendly access to software verification, validation, and quality assessment, and conducts dominant pragmatic studies with major web search engines: eg: Google,. This search engine is very crucial for testing and assess using traditional ways by which it leads to the lack of an objective and generally recognized oracle. The results are useful for both search engine developers and users, and authenticates that our approach can productively amend the oracle problem and challenges surrounding a lack of specifications when verifying, validating, and evaluating substantial and complicated software systems.

**Index Terms**—Software quality, verification, validation, quality assessment, oracle problem, lack of system specification, metamorphic testing, user-oriented testing, search engine



**INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN  
ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY**

**ICEMST-2021**

**29th & 30th January 2021**

**ASSESSMENT WEB SECURITY AND DATA SECURITY ON PRIVATE CLOUD  
COMPUTING**

**Paper ID - IT008**

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**ABSTRACT**

Data security is an essential topic that contributes the success of business operation nowadays. The urgency of applying efficacious Data security can be seen in all business and non-profit entities. The article takes the case of university XYZ that uses private cloud computing as essential tools to support its business processes. The article examines the effective way of measuring the level of Data security and Web Security performance that focuses on private cloud use with its recommendations. Web Security is used to measure the Data security and Web Security performance, respectively. The thing examines the maturity level gap between current and expected results and provides necessary recommendation to improve current situation. The outcome of the article is expected to provide as a reference for Data security application in higher education Organizations.

**Keywords:** Information Security, CyberSecurity, Private Cloud Computing, ISO 27001, COBIT 5.

**INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN  
ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY  
ICEMST-2021  
29th & 30th January 2021**

**IPATH-PATH REDUCTION IN WIRELESS SENSOR NETWORK**

**Paper ID - IT009**

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**ABSTRACT**

Late remote sensor systems (WS-Ns) are ending up increasingly multifaceted with the emerging system scale and the dynamic idea of remote communications. Many approximation and analytic methodologies rely upon per- bundle guiding ways for careful and fine grained examination of the intricate system practices. Here propose i-Path, a novel way induction way to deal with recreating the per-bundle steering ways in unique and vast scale systems. The essential thought of i-path is to abuse high way similitude to iteratively induce long ways from short ones. i-path begins with an fundamental known arrangement of ways and achieves way surmising iteratively. I-Path includes a original plan of a insubstantial hash work for chequered of the deduced ways. Keeping in mind the end goal to additionally enhance the surmising capacity and in addition the execution productivity, i-path incorporates a quick bootstrapping calculation to recreate the fundamental preparation of ways. We likewise actualize i-path and assess its execution utilizing follows from substantial scale WS-N organizations and in addition broad reenactments. Results demonstrate that i-path accomplishes significantly higher reproduction proportions under various system settings contrasted with other cutting edge approaches.

**Keywords:** IPath, Inference, WSN

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**PREEMPTIVE ASSESSMENT THROUGH INFORMATION SECURITY  
PERCEPTION**

**Paper ID - IT010**

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**ABSTRACT**

The Internet has become a data superhighway where scholars come out with their ideas and social experiences. However, usage of the Internet regularly leads to various risks like cybercrime, identity theft, and malware infections. Therefore, it is needed to have knowledge about Information Security practices and the level of awareness that possess to assess and prevent them from cyber crimes. **Methods:** The research aligns a Descriptive Interrelation Method which includes the use of online questionnaires conveyed through Google form, interviews and observations. Simple Random Sampling was the method used for choosing the respondents. **Findings:** Outcomes indicate that there was a significant positive association between respondents Year level with the level of Information Security Awareness (ISA), ( $r(411) = .451, p < .001$ ). The result shows that the higher the Year Level of the respondents, the higher the comprehension and awareness in Information Security (IS). Students improve their experience, knowledge, and awareness on the protection and dissemination of information when they progress to a higher year in study. This implies that the program curriculum successfully meet the knowledge requirements of the learners in the university. **Application/Improvements:** The result of this study can serve as basis for policy measures on the use of Computer Networks in the University. It may also serve as a guide for developing inclusive and beneficial Information Security Perception (ISP) training programs for the students.

**Keywords:** Information Security Awareness, Case Study, Descriptive interrelation Design,

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**RECENT ADVANCEMENT AND ROLE OF SEARCH ENGINES IN  
INFORMATION RETRIEVAL SYSTEM**

**Paper ID - CSE011**

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**ABSTRACT**

In recent Advancement growth of information is ubiquitous in nature and can be accessed anywhere by the user and needed information is provided according to the query search is the main objective in information Retrieval system. The source of information accessed can be of any form Text, audio and video etc. In the information retrieval system the information accessed is in the form of Text based retrieval, speech retrieval system and Image Retrieval system However user can get needed information retrieval of information accordingly by using Text, speech and image search criteria. In information Retrieval System text based retrieval is more reliable then speech retrieval system, where the accuracy rate in terms of precision and recall are more effective in text based retrieval system compared to speech and image retrieval system.

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**ANALYSIS ON GRAPHICAL PASSWORD AUTHENTICATION TECHNIQUES**

**Paper ID - CSE012**

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**ABSTRACT**

Nowadays, user authentication is one of the important topics in information security. Passwords are the most commonly used method for identifying users in computer and communication systems. Authentication is process of determining whether someone or something is, in fact who or what to be declared. For authentication mostly textual passwords are used. Strong text-based password schemes could provide with certain degree of security. Mostly passwords are strings of letters and digits, i.e., they are alpha-numeric. Such strong passwords are difficult to memorize often leads their owners to write them down on papers or even save them in a computer file, emails. Graphical passwords have emerged over the past decade as a technology that may change the way we authenticate to systems; it is a potential technology to replace typing passwords and remembering sophisticated password strategies. Graphical passwords utilize the human ability to remember images and thus have the potential to increase security since longer pass-words can be used, and will be remembered for a longer period of time. However graphical password is also vulnerable to various types of attacks. In this paper we present few trending techniques in graphical passwords and its advantages and disadvantages.

**Keywords:** textual passwords, authentication, graphical passwords, information security

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**ANALYSIS OF DATA GOVERNANCE IN BLOCKCHAIN-BASED SYSTEMS**

**Paper ID - CSE013**

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**ABSTRACT**

In a blockchain-based system, data and the agreement-based process of recording and modifying them over distributed nodes are central to enabling the untrust multi-party transactions. Thus, completely understanding what and how the data are stored and manipulated finally determines the degree of usefulness, performance, and cost of a blockchain-based application. While blockchains enhance the quality of the data by providing a transparent, constant, and consistent data store, the technology also brings new challenges from a data management viewpoint. In this paper, we analyse blockchains from the perspective of a developer to highlight important concepts and considerations when incorporating a blockchain into a larger software system as a data store. The work focuses to increase the level of understanding of blockchain technology as a data store and to promote a methodical approach in applying it to large software systems. Firstly, we identify the common architectural layers of a typical software system with data stores and conceptualize each layer in blockchain terms. Secondly, we examine the placement and flow of data in blockchain-based applications. Thirdly, we explore data administration aspects for blockchains, especially as a distributed data store. Fourth one, we discuss the analytics of blockchain data and trustable data analytics enabled by blockchain. Finally, we examine the data governance issues in blockchains in terms of privacy and quality assurance.

**Keywords:** Analytics, blockchain, databases, data governance, data handling, distributed data

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**A NOVEL FOR ANALYZING AND RECOGNITION OF TWITTER ACCOUNTS**

**Paper ID - CSE014**

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**ABSTRACT**

Twitter is a new web-appliance in performance twofold roles of on-line social-networking and micro blogging. We have premeditated the difficulty of computerization by bots and cyborgs on Twitter. As a accepted web-application, Twitter has turn out to be a sole proposal for information distribution with a huge user-base. However, its reputation and very unlock nature have made twitter a very attractive target for misuse by robotic programs, i.e., bots. The problem of bots on Twitter is additional complex by the key role that computerization plays in everyday Twitter usage. Based on the data, we have recognized features that can distinguish humans, bots, and cyborgs on Twitter. valid bots generate a large amount of compassionate tweets deliver news and updating feeds, while malicious bots extend spam or malicious contents. More fascinatingly, in the middle between human and bot, there has emerged cyborg referred to either bot -assisted human or human-assisted bot. To carry users in identifying who they are interacting with, this paper focus on the categorization of human, bot and cy-borg accounts on Twitter.

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29th & 30th January 2021**

**ONLINE VOTING USING BLUETOOTH ENABLED MOBILE PHONE**

**Paper ID - CSE015**

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**ABSTRACT**

In the ever changing world of mobile computing, traditional ways of doing survey has been greatly overtaken by mobile voting or survey technology. Traditional methods of carrying out surveys is tedious and time consuming ,while mobile voting emerges as a new and exciting form of getting feedback effectively and efficiently. Mobile voting can be done by the use of wireless technologies. This case study examines the application of a mobile interactive voting system. The system uses the Bluetooth technology to cast votes from mobile phones and display instant results of votes graphically. The case study stresses on the motivation for this type of paperless, pollution free system which conforms to the “Mauritius Ile Durable” project. It also describes the design framework of the system and the main functionalities that were implemented. The study also highlights the different stages throughout the development process, starting from the design, and implementation until the testing of the system. It focuses on important issues in order to provide a secure, high performance and easy to use system. The study ends with an evaluation of the practical implementation of this type of system.



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**29th & 30th January 2021**

**ADAPTABLE SUBSPACE CLUSTERING COMBINE APPROPRIATE SELECTION  
AND K-MEANS CLUSTERING FRAMEWORK**

**Paper ID - CSE016**

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**ABSTRACT**

Subspace clustering is a technique which finds groups within different subspaces (a selection of one or more dimensions). Suitable to the nonexistence of class labels, unsupervised feature selection is much more complicated than supervised feature selection. concerning as an important computing prototype, cloud computing is to address big and distributed databases and rather simple computation. In this model, data mining is one of the most important and fundamental problems. A huge amount of data is generated by sensors and other smart devices. Data mining for these big data is essential in various applications. K-means clustering is a difficult technique to group the similar data into the same clustering, and has been commonly used in data mining. However, it is still a challenge to the data containing a huge amount of noise, outliers and unnecessary features. A variation of K-means clustering algorithm, namely, adaptable subspace clustering, incorporates feature selection and K-means clustering into a integrated framework, which can select the advanced features and improve the clustering performance. tentative results verify the presented method has more robust and better performance on standard databases compared to the existing approaches.

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**PREEMPTIVE ASSESSMENT THROUGH INFORMATION SECURITY  
PERCEPTION**

**Paper ID - IT017**

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**ABSTRACT**

The Internet has become a data superhighway where scholars come out with their ideas and social experiences. However, usage of the Internet regularly leads to various risks like cybercrime, identity theft, and malware infections. Therefore, it is needed to have knowledge about Information Security practices and the level of awareness that possess to assess and prevent them from cyber crimes. **Methods:** The research aligns a Descriptive Interrelation Method which includes the use of online questionnaires conveyed through Google form, interviews and observations. Simple Random Sampling was the method used for choosing the respondents. **Findings:** Outcomes indicate that there was a significant positive association between respondents Year level with the level of Information Security Awareness (ISA), ( $r(411) = .451, p < .001$ ). The result shows that the higher the Year Level of the respondents, the higher the comprehension and awareness in Information Security (IS). Students improve their experience, knowledge, and awareness on the protection and dissemination of information when they progress to a higher year in study. This implies that the program curriculum successfully meet the knowledge requirements of the learners in the university. **Application/Improvements:** The result of this study can serve as basis for policy measures on the use of Computer Networks in the University. It may also serve as a guide for developing inclusive and beneficial Information Security Perception (ISP) training programs for the students.

**Keywords:** Information Security Awareness, Case Study, Descriptive interrelation Design,

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**MULTI-ASCENDANCY DATA IN PUBLIC CLOUD-STORAGE USING  
ATTRIBUTE BASED ENCRYPTION WITH TRUSTED SHARING**

**Paper ID - CSE018**

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**ABSTRACT**

Attribute-predicated-Encryption (ABE) is viewed as a capable crypto-graphic foremost execute to assurance information proprietor's instant control over their information in broad daylight dispersed storage. The prior A-B-E plans embrace just a single ability to keep up the whole possessions set, which can bring a private point blockage on both security and completing. As a result, some multi-domination tactics are planned, in which diverse rising elements disjointedly keep up disjoint excellence subsets. However, the single-point holdup subject stays unsettled. In T-MACS, profiting by (T; N) { T - anyone Ascendancy, N- no of increasing entities} limit sharing, the ace-key can be mutual among different ascendant-elements, and a licit-utilize can cause his secret-key by interfacing with any T ascendant-attributes. Security and implementation examination comes about reveal that T-MACS is not just definite secluded when not as much as T ascendant-substances are bargained, however strong when no not as much as T ascendant-elements are active in the framework. Furthermore, by successfully cumulating the predictable multi-domination scheme with T-MACS, we construct a successful procedure to ensure security among data in public-cloud-storage.

**Keywords-** Cloud computing, Attribute Based Encryption, Cryptography, decryption, Master-key, Secret-Key, Key-Generation, Data-Owner.

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**SPEED UP OF SOFTWARE DEVELOPMENT USING OBJECT ORIENTED  
DESIGN PATTERNS**

**Paper ID - CSE019**

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**ABSTRACT**

Software quality is considered to be one of the most important concerns of software production teams. Software design patterns are a better solution for building large Object-Oriented (OO) software systems. They present well-tested and verified solutions to recurring difficulties that developers address. There are many advantages to using patterns. They can speed up the software development method. Design patterns combine learning to perform it more natural for designers to use well-known and strong designs developed from proficient experience. Simultaneously, software design patterns are too abstract and remain an art that has to be learned over time with experience. This study aims to propose a methodology for comparing design patterns to alternative designs with an analytical method. More specifically, the identification of such thresholds can become very useful for decision making during system design and refactoring.

**Keywords:** Design patterns, Object oriented programming, software performance analysis. Quality Attributes.

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**EFFICIENT SENSOR DATA TRANSMISSION TO THE IOT APPLICATIONS  
USING MQTT-SN AND MQTT**

**Paper ID - CSE020**

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**ABSTRACT**

Internet of Things (IOT) Technology rapidly growing area and active research happening in different Layers of Internet Protocol Stacks. IOT stack have Physical layer & Data Link layer, Network Layer, Transport layer and Application layer. Messaging protocols and Applications. Now IOT has many applications like Smart cities, Smart Homes, Environmental monitoring, Agricultural Application and Medical data transmission from remote places to expert doctors. Numbers of IOT Application etiquette (MQTT, MQTT-SN, COAP, XMPP, and HTTP) are available and implemented in rich resource Environments like good computing power and bandwidth. However, all Application etiquette is not appropriate under lossy wireless antenna complex environment. In IOT Environment consists of antenna Nodes, End Systems and related applications. Latency and bandwidth problems exist between sensor node and End Systems in two tiers IOT Environment. To resolve this issue, we proposed Three Tier IOT Architecture; it consists of antenna Node, IOT Gateway / Fog Computing Node, End Systems and Applications. We contain discuss proposed flexible design, development and integration of IOT Gateway for different IOT applications using more efficient MQTT-SN and MQTT application messaging Protocols.

**Keywords:** IOT, MQTT, MQTT-SN, Wireshark, Node-Red, Arduino

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**DATA AGGREGATION ALGORITHMS IN WIRELESS SENSOR NETWORKS: A  
REVIEW**

**Paper ID - CSE021**

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**ABSTRACT**

In the wireless sensor network (WSN) the multi hop designed based on the application requirement of the node in sensor. Main aim of wireless sensor network is to provide a collected data to sink and monitors the given area of interest during the physical phenomenon using sensors. If the nodes are deployed in a hostile environment the overcoming of energy constraints by recharging and replacing the batteries in the nodes of WSN becomes impossible and thereby to keep the network alive for a long time as maximum the communication has to be performed with the load balancing in wireless sensor networks . The WSN is built by the communication, energy and computational constraint nodes. To protect from disaster the forest fire detection and sink which monitors the demand reception of data with the bounded delay are used which is a time critical applications. Thus requires a protocol to be designed for providing the data to sink with bounded delay and enhance the lifetime of network, data accuracy. In this paper, we represented various data aggregation algorithms in wireless sensor networks and possible future research.

**Keywords:** Wireless Sensor Networks, data aggregation, lifetime, latency and data accuracy, Modified Cuckoo search (MCS) Algorithm, Modified time on task (MTOT) method, Gravitational search algorithm (GSA)

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**ARTIFICIAL INTELLIGENCE/MACHINE LEARNING IN DATABASE  
MANAGEMENT TOOLS**

**Paper ID - ECE022**

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**ABSTRACT**

With the evolution of technologies and their integration in to various applications, huge amount of digital data is generated every day. Databases are matured to handle accessing and processing large amounts of data with variety and variability. In spite of rugged databases, as there is huge amount of data movement happens within and across systems and storage elements, there is a need to handle the issues associated, in an autonomous and intelligent manner. Machine learning algorithms are matured in all dimensions to handle the complex problems with high accuracy and efficiency. In this paper various aspects of DATABASE management Systems issues that can be handled by AI/ML techniques are studied.

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29th & 30th January 2021**

**DESIGN AND IMPLEMENTATION OF MONITORING AND ALERTING  
ELECTRICAL LINE SYSTEM**

**Paper ID - ECE023**

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**ABSTRACT**

The main aim of this paper is to observe and be alert for the faults occurred in transmission lines like fluctuations in voltage, open circuit and short circuit. As the electric transmission line is spread widely at long distance location is become difficult to monitor, control the power supply in the transmission line. So, we proposed and implemented this system .In this paper the voltage above normal voltage condition is indicated as high voltage and voltage below normal voltage is indicated as lower voltage. When the two wires are shorted, the output is shown as the short circuit. Finally when the wire is disconnected or connection is interrupted then the output is indicated as open circuit occurred. By this system we can observe the fault indication on LCD display and be alerted by buzzer sound.

**Keywords:** transmission line ,short circuit ,open circuit.



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**MICROSOFT DATABASES SERVICES**

**Paper ID - ECE024**

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**ABSTRACT**

Organizations all over the world use databases to run several operations and for management purposes. The type of database chosen by the company depends on the functionality of the database, its features, the database product's success history and the intended use by the company. Choosing the right database product of category for use in an organization therefore depends on several aspects which are met to guarantee proper operations. This report provides details on Microsoft databases category, the available platforms and analyses why it is better than other database categories. The research would be conducted in such a way that it would focus on the functionality of the database class as a way of identifying and differentiating it from other databases. What makes it better than other classes of database and how it promotes itself based on its underlying features.

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**IMPLEMENTATION AND ANALYSIS OF CONVOLUTION ENCODER ON FPGA**

**Paper ID - ECE025**

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**ABSTRACT**

In the latest digital communication systems such as Software Define Radio (SDR), convolutional encoder plays an important role as an efficient channel coding block. Data transmission over the wireless channel is very much affected by interference, distortion and attenuation that reduces Signal to Noise Ratio (SNR) which is an important parameter in communication there by hampers the receiver's capacity to receive the transmitted signal with minimal errors. The error detection and correction methods are used to improve the bit error rate (BER). Special channel coding methods called Forward error correction (FEC) which has the capability to encode the data before sending to the channel. Convolution encoder is an efficient coding technique which is used at the transmitter for deep space and wireless communication systems. An advantage of convolutional coding is that it can be applied to a continuous data stream as well as to blocks of data. The proposed architecture reduce the area complexity and encode processing time as compared to conventional method. The Verilog coding for the proposed encoder is written, simulated and synthesized using Xilinx ISE version 14.7 tool.

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**ANALYSIS OF VARIOUS REVERSIBLE LOGIC GATES USING MENTOR  
GRAPHICS TOOLS**

**Paper ID - ECE026**

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**ABSTRACT**

The rapid advancement in VLSI industry continues to establish a smaller feature size, causing the integration of more millions of transistor on a single piece of silicon chip. As the number of transistors increases it induces the power dissipation .It can be reduced by reversible logic gates. A one-to-one mapping between inputs and outputs is realized[3] . By using inverse property of reversible logic, all the inputs and outputs can be retrieved from each other. CMOS realization of various logic gates using reversible logic is proposed in this paper.

Reversible logic gates is becoming one of the best emerging design technology having its application in low power CMOS, quantum computing, cryptography and nanotechnology[1] . The concept of reversible logic has become burgeoning tool for designing efficient digital circuits with low power dissipation . Research done in this paper aims to utilize idea of reversible logic to break conventional speed-power. This will optimize in terms of quantum cost, delay, power dissipation[2]. Due to low power dissipation in computing reversible logic is an attractive field of research in quantum and optical computing. Conventional circuits are irreversible in nature and dissipate power for every bit loss in circuit. In this we discuss about some reversible logic gates like Feynman gate, Fredkin gate, Peres gate, Toffoli gate, TR gate. This paper is intended to design an implementation of reversible logic gates by using mentor graphics backend tools with 130nm technology to overcome the power loss of conventional logic gates[4]. It has been observed a significant decrease in power dissipation, delay compared to conventional CMOS logic.

**Index Terms:** Reversible logic gates, power dissipation, quantum cost, mentor graphics tool.

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USING MQTT-SN AND MQTT**

**Paper ID - ECE027**

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**ABSTRACT**

Internet of Things (IOT) Technology rapidly growing area and active research happening in different Layers of Internet Protocol Stacks. IOT stack have Physical layer& Data Link layer, Network Layer, Transport layer and Application layer Messaging protocols and Applications. Now IOT has many applications like Smart cities, Smart Homes, Environmental monitoring, Agricultural Application and Medical data transmission from remote places to expert doctors. Numbers of IOT Application Protocols (MQTT, MQTT-SN, COAP, XMPP, and HTTP) are available and implemented in rich resource Environments like good computing power and bandwidth. However, all Application protocols are not suitable under lossy wireless sensor network environment. In IOT Environment consists of Sensor Nodes, End Systems and related applications. Latency and bandwidth problems exist between sensor node and End Systems in two tiers IOT Environment. To resolve this issue, we proposed Three Tier IOT Architecture; it consists of Sensor Node, IOT Gateway /Fog Computing Node, End Systems and Applications. We have discussed proposed flexible design, development and integration of IOT Gateway for different IOT applications using more efficient MQTT-SN and MQTT application messaging Protocols.

**Keywords:** IOT, MQTT, MQTT-SN, Wireshark, Node-Red, Arduino

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**DATABASE DESIGN FOR REMOTE HEALTH MONITORING SYSTEM**

**Paper ID - ECE028**

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**ABSTRACT**

Remote health monitoring facility extends health services to people where immediate health facility is not available. This enables continuous health monitoring for critical diseased people from remote location. The typical system consists of health parameter sensing elements, communication infrastructure to communicate with a central monitoring location where medical facilities such as Decision supporting, scheduling of medical practitioners etc. are available. Electronic record maintenance is very important in remote health monitoring system. This paper aims at the design of the database for remote health monitoring system. Keywords: Database Design, network layers, security, data access.

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**CELL PHONE BASED WIRELESS SENSOR NETWORKS FOR SOCIAL FIDELITY  
VIA COOPERATIVE DATA SHARING**

**Paper ID - ECE029**

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**ABSTRACT**

The Ubiquitous nature of cell phone and the recent advancement in the cell phone technology and evolution of smart phones have created a new room for researchers in the area of wireless sensor networks (WSN). It created a new paradigm of using the cell phone as sensor device and so called sensor enabled cell phone based data sharing. The proposed method of sensor data sharing uses the cell phone as the sensor device and motivate the public to use their cell phone as sensor device and contribute for data sharing to the knowledge bank and increase the availability of real time data in the knowledge database. The special categories of sensor embedded smart phones, which can sense multiple parameters like motion, temperature, pollution etc.. are developed for this purpose. Using these smart phones different users at different locations are invited and coordinated for data sharing. This is more or less the social commitment and responsibility of and individual towards his society. The collected data can be used for improving the well being of human beings.

**Index Terms**—Cell Phone based WSN, sensor embedded cell phone, user privacy, protocols, android.

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**AN APPRAISAL OF DIFFERENT TECHNIQUES OF DATA AGGREGATION IN  
WIRELESS SENSOR NETWORKS**

**Paper ID - ECE030**

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**ABSTRACT**

A wireless sensor network (WSN) associated with a set of wireless sensor nodes using a high-speed network connection. All deployed sensor nodes are used to efficiently detect and process data on the network. The main purpose of data aggregation is to eliminate redundant data that increases the life of the network; otherwise, they expand or retain the power of the sensor nodes to aggregate data into the WSN. Hence, it is necessary to add the data of the discovered information in high quality, and this is achieved through data aggregation. In this document, you will look at the data aggregation approaches that WSN call centralized, tree, clustered, and intranet. Also review the comparison of several approaches to the aggregation of data latency, data accuracy, computational overhead, scalability, redundancy, and with the consumption of energy.

**Key words:** wireless sensor network (WSN), data aggregation, centralized,

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**CYBER CRIME & CYBER SECURITY-LATEST TRENDS**

**Paper ID - ECE031**

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**ABSTRACT**

Cyber Crime & Cyber Security underwent several transformations leading to steep increase in Cyber crimes across the world. The Counter measures to tackle the cyber crime and developing Cyber security is becoming a challenging task . The Cyber space is increasingly dominant in the present scenario of highest usage of Internet, Computers, Mobiles and digital platforms. In this paper the developments in Cyber crime and cyber attacks are dealt .The increasing damages towards Social security, financial frauds, Banking frauds, Data thefts are covered. Cyber security aspects covering Internet Security, Social crimes, Fraudulent Apps., Banking digital Transactions, Data Security are detailed. The legal aspects towards Cyber Security and Cyber crime are detailed. Social awareness strategies are also outlined.



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**ANALYSIS AND COMPARISON OF REVERSIBLE HYBRID FULL ADDER/FULL  
SUBTRACTOR AND CONVENTIONAL FULL ADDER & FULL SUBTRACTOR**

**Paper ID - ECE032**

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**ABSTRACT**

Reversible logic gates will be implemented over a high scale in the future technologies. Reversible logic is seen as demanding field with the variegated applications like CMOS design consuming less power. Reversible computation plays an important role in low power circuit design and efficient energy recycling[4] . A reversible logic gate which has the equal number of inputs and outputs and one-to-one mapping between the input vectors, so that the input vector states can uniquely reconstructed from the output vector states. This paper includes a reversible full adder/subtractor design with reversible logic gates and produces less number of garbage outputs. The main purpose of designing reversible logic gates is to decrease quantum cost, depth of the circuits and the number of garbage outputs[5] . Thus the proposed architecture of full adder/subtractor is having minimum number of garbage outputs than the existing architecture.

Reversible full adder is further used in the construction of n-bit full adder/subtractor. An adder is a VLSI application used in ALU design, address generation in processors, multiplexers and so on. The complexity in VLSI design increases with increases level of integrity. In conventional CMOS design the area, power dissipation and delay are more when compare to other low power technique, reversible logic[1]. Adders is a versatile component and mainly used in addition and multiplication based on the basic processing element.

The reversible circuits are building block of quantum computers since , the operations involved in this are reversible. In this paper we proposed a design of full adder using reversible logic gates. The design of full adder is simulated by using mentor graphics tool with 130nm technology and also here we compared the parameters like power dissipation, delay between convention full adder/subtractor and reversible full adder/subtractor.

**Key Words:** Reversible logic gates, adder, subtractor, mentor graphics tool, low power.

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**FULL ADDER ANALYSIS USING FINFET TRANSISTORS**

**Paper ID - ECE033**

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**ABSTRACT**

The objective of this paper is to analyze Full Adder circuit using FinFET which solves the problems faced in CMOS circuits. The proposed FinFET based circuit reduce the power consumption. As CMOS circuit performance reduces when fabricated below 45nm technology, FinFET devices is the alternative solution. The basic motivation is to Analyze an efficient, fast and low power full adder. Since the basic building block of a multiplier is an adder circuit, a study on the area and the power consumed by different adders was reviewed and a proper relation was found out between power and area complexity of all the adders under consideration.

**Keywords:** CMOS, FINFET, Leakage current, Power Consumption

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**STUDY OF PROPAGATION EFFECTS ON WIRELESS COMMUNICATION  
SIGNALS AT RADIO FREQUENCY**

**Paper ID - ECE034**

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**ABSTRACT**

A satellite communication system so as to operates in radio frequency range specifically above 10 GHz with low angle of elevation below  $10^\circ$  tropospheric scintillation attenuation is more effected on the received signals than attenuation because of rain. Scintillation is most significant fade with large scale variations inside meteorological parameters, solar energy radiation, path length, turbulence layer height from sea and surface levels, day as well as night times and short and long time scales. Hyderabad has its own special tropical climatic conditions are changing by means of metrological parameters like temperature, humidity and wind pressure for long term basis. To overcome the scintillation effects on signal degradation as well as enhancement in received signal from satellite communication systems. We need an innovative and develop tropospheric scintillation prediction models fit to Hyderabad tropical climatic conditions. For that this paper proposed tropospheric scintillation prediction models for long term basis give statistically estimation and graphically representation at 40 GHz and 50 GHz beacon frequency using mat lab software which give the study, analysis and diurnal characteristics of scintillation for Hyderabad tropical region.

**Keywords:** Scintillations, V band, Satellite signals, Tropical climate

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**MULTI OBJECTIVE OPTIMIZATION OF REINFORCED CEMENT CONCRETE  
RETAINING WALL**

**Paper ID - CIVIL035**

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**ABSTRACT**

The optimum design of reinforced cement concrete cantilever (RCC) can be solved in the for the minimum cost satisfying required external and internal stability criteria. For high level decision making, an ideal optimization should give the optimized cost vis a vis corresponding factor of safety (FOS) against external stability like bearing, sliding and overturning, which is known as Multi Level Objective optimization problem In the present work multi objective optimization of the RCC retaining wall is presented with conflicting objectives of minimum cost and maximum factor of safety against external stability. The Pareto – optimal front is presented using an evolutionary Multi Objective Optimization algorithm non dominated sorting genetic algorithm (NSGA II) the results are compared with that obtained using single objective optimization of minimizing the cost based on the results a guideline for the optimum dimensioning of the RCC cantilever retaining wall is presented.

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**29th & 30th January 2021**

**THE STUDY OF MANAGEMENT AND CONTROL OF WASTE  
CONSTRUCTION MATERIALS IN CIVIL CONSTRUCTION AT  
AMBERPET AREA, HYDERABAD, TELANGANA**

**Paper ID - CIVIL036**

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**ABSTRACT**

The increased economic growth as well as urbanization in developing countries have led into extensive construction activities that generate large amounts of wastes. Material wastage in construction projects resulted into huge financial setback to builders and contractors. In addition to this, it may also cause significant effects over esthetics, health, and the general environment this. Their wastes needs to be managed as well as their impacts need to be ascertained to pave way for their proper management, however in many cities of India wastes materials management is still a problem. In this research work we are discussing the method for the management control of Waste construction materials. The main objective of this work is present the waste control procedures included as part of particular site management in general based on pull learning process and constitutive data collection technique. Additionally we are presenting the literature survey study over waste management system as well as construction waste management. Comparison of demolition and newly construction materials hold be done .This research paper reveals information that demolished material also have strength .They can use in roads and pavements .We have collected demolished material from Amber pet ,Hyderabad area .We have tested demolished material in concrete technology lab of Mahaveer Institute of science and technology, Chandrayangutta, Hyderabad, Telanagana. We have tested demolished material by various tests i.e compressive strength of bricks, absorption test on bricks, crushing strength, Hardness test on bricks, Impact test of aggregates and water absorption .This research paper gives result analysis of comparing strengths of demolished material and newly constructed buildings.

**Key words:** Demolished material, strength of bricks, demolished construction materials

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**CHALLENGES OF MUNICIPAL SOLID WASTE MANAGEMENT IN HYDERABAD  
METROPOLITAN CITY**

**Paper ID - CIVIL037**

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**ABSTRACT**

Municipal solid waste management is a big challenge to every municipality in India up to now. According to constitution amendment Act of 1992, urban local bodies (ULBs) are responsible for keeping cities and towns clean. So ULBs adopted different methodologies in cities but still finding it as a challenging task because of lack of adequate infrastructure, institutional loopholes, lack of funds by all ULBs, other reasons were increasing population, changing habits of people buying capacity, modern life style, lack of awareness, political reasons for failures in strict implementation of policy. Because of these constraints some of the municipalities encourage private sector participation in MSW management but still finding it challenging by municipalities especially Hyderabad municipal corporation. So in this paper we try to get better solutions for MSW management by surveying on above said issues.

**Key words:** Municipal Solid Waste, TPD, urban local bodies, GHMC, Population

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**PARTIAL REPLACEMENT OF COURSE AGGREGATE WITH CERAMIC  
TILES IN CONCRETE**

**Paper ID - CIVIL038**

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**ABSTRACT**

Due to the day-to-day innovations and development in construction field, the use of natural aggregates is increased tremendously and at the same time, the production of solid wastes from the demolitions of constructions is also high. Because of these reasons the reuse of demolished constructional wastes like ceramic tile has come into the picture to reduce the constructional waste and to reduce the scarcity of natural aggregates for making concrete. The ceramic tile waste is not only occurring from the demolition of structures but also from the manufacturing nit. This waste material should have to be reused in order to deal with the limited resource of natural aggregate and to reduce the construction waste. Therefore, reuse of these crushed tiles in concrete production could be an effective measure in maintaining a environment and improving the properties of concrete. In present study, a total twenty-four cubes with the same dimensions (150mmx150mmx150mm) were cast with four different proportions. Six cubes as one type of control proportion that is 0% of ceramic waste as partial replacement of coarse aggregate with M<sub>25</sub> grade of concrete was designed and tested. The mix design of four types of mixes was prepared by replacing the coarse aggregates and at different percentages of crushed tiles. The concrete cube was tested like compression tests that to find out the compressive strength of specimens of hardened concrete at 7days, 14days and 28days. Before undergoing the destructive test, the performance of the concrete was determined by undergoing slump cone test, compressive strength test, Impact test, crushing test and absorption test.

**Key Words:** Natural sand, Ceramic Tiles, Compressive strength.

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**STRENGTH PROPERTIES OF RECYCLED AGGREGATE CONCRETE -  
CONVENTIONAL CONCRETE AND SELF-COMPACTING CONCRETE**

**Paper ID - CIVIL039**

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**ABSTRACT**

The objective of the present investigation is M30, M40 grades concrete has been considered. Compressive strength and Flexural strength of conventional as well as self-compacting concrete has been examined. Development of these strength with different age of curing is investigated.

The properties of recycled aggregate have deviated from the properties of natural aggregate. For the concrete production both for conventional: as well as self-compacting concrete these recycled aggregates are replaced by normal concrete in increasing order of 10%, 20%, 30% each time. However, these changes have not affected the performance of the recycled aggregate concrete both in the case normal as well as self-compacting concrete. But for the self-compacting concrete quality of the concrete is observed to be degrading after a certain percentage of replacement of recycled aggregates by natural aggregates. The high water absorption of recycled aggregate has been taken care by pre-soaking process, thus making recycled aggregates as workable as natural aggregate.

**Keywords:** Compressive strength, Tensile Strength, Flexural Strength.



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**A REVIEW ON PERFORMANCE EVALUATION OF PELTON TURBINE**

**Paper ID - CIVIL040**

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**ABSTRACT**

In earlier days experimental methods used to predict the performance of turbines. But in present generation for prediction purpose using numerical methods such as mainly computational fluid dynamics (CFD). CFD has an effective tool for performance prediction of hydraulic pelton turbine. In pelton turbine, the water jet issued from nozzle is surrounded by air and pressure around the jet and turbine is atmospheric. Pelton turbine performance mainly depends on the size, quality of jet and shape of the bucket. In the present review paper majorly focused by using literature for design optimization and application of CFD for performance prediction of the pelton turbine have been discussed.

**Key words:** Pelton Turbine, CFD, Multi phase fluid flow, surface flow, etc.

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29th & 30th January 2021**

**COST-BENEFIT ANALYSIS ON IMPLEMENTATION OF GREEN BANKING  
TECHNIQUES IN INDIAN BANKING INDUSTRY (w.r.t. ATM's)**

**Paper ID - MBA041**

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**ABSTRACT**

This paper investigates the significance of Green Banking and soughts the Cost-Benefit Analysis of implementing Green Banking Techniques in Indian Banking Industry. Green banking is a stream of banking in which environmentalism is adopted as the operational base of banking activities. Green banking avoids as much paperwork as possible and promotes the transactions with the effective usage of modern technology. Banking, being a key Industry in the service sector has largest bank network spread over a vast area. In this competitive environment, to reach its goals banks has to evaluate their cost structure. Therefore, one of the problems emerging in the changing banking scenario is, whether the huge investments made in providing Green banking services are justifiable with the benefits or Returns earned with Green banking services. The study is proposed to be conducted with two objectives: 1) To establish the Costs and Risks of implementing Green Banking Techniques w.r.t. ATM's 2) To establish the Benefits of implementing Green Banking Techniques and provide possible recommendations for further improvement. To achieve the above stated objectives, the data for the study is proposed to be collected through secondary sources.

**Keywords:** Green Banking, Cost-Benefit Analysis, ATM's Indian Banking Industry Techniques.

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**TO CREATE MORE ACCOMPLISHMENT IN MANAGING EMOTIONAL  
INTELLIGENCE AND ITS RELATIONSHIP WITH LEADERSHIP SKILL  
PRACTICES**

**Paper ID - MBA042**

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**ABSTRACT**

In recent years leadership and emotional intelligence have become hot topic in management and organization researches. We made an attempt to study the relationship between emotional intelligence and leadership. Emotional intelligence is the ability to perceive and express emotion to stimulate thought, understand and reason. It also regulates emotion in oneself and others. Leadership refers to the ability to influence, motivate and enable others to contribute to the effectiveness and success of the organizations of which they are members. Emotional Intelligence is very most important for managerial role in the success and competency at organization. Emotional Intelligence is a capacity to monitor one's own and other's emotions to differentiate among them and to use this information to point one's judgment and actions. It involves self-awareness (i.e. the ability to understand one's emotions), self- management (the ability to keep unconstructive emotions under control), and self- motivation ( developing skills to attain target and taking initiative to act on opportunity). This paper made an attempt It helps a middle level manager to develop communicating skills, to build an adjustable mentality with other employees , improve the leadership skills for building a good team, and manage the conflicts between employees . In the workplace, this ability can significantly improve interpersonal communication and human skills. It is therefore important to understand what emotional intelligence is, how it can be used in the workplace to increase productivity and fulfillment, and how this individual's power can turn his life around. Therefore, it is necessary to create more achievement in managing skills through Emotional Intelligence skill training.

**Keywords:** Emotional intelligence, Leadership practices, Executives and Public sector organization

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**“ORGANISATIONAL TRANSFORMATION: A NEW ORIENTATION THROUGH  
TECHNOLOGY IN DIGITAL REALM”**

**Paper ID - MBA043**

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**ABSTRACT**

“Organisational Transformation is a ‘natural progression’. The companies who will not manage this transition will provide room for new, more employee and customer oriented players”. In an organizational context, a process of profound and radical change that orients an organization in a new direction and takes it to an entirely different level of effectiveness. Unlike 'turnaround' (which implies incremental progress on the same plane) transformation implies a basic change of character and little or no resemblance with the past configuration or structure.

According to Henry et al, 2002, during implementation of change and transformations, a new management style occurs and largely impacts and influences the power dynamics in the organisation. Studies have shown that organisational change in management and leaders may result to power conflicts since employees may not support appointments or new leadership. Power dynamics issue are impacted in change and transformations in products, services and even management, in a way that new leaders may not be capable of handling employees with cultural differences. Shifting in power- dynamics may bring conflicts to the industries and organisation as it may affect the entire implementation of the organisational change approach. This paper addresses organizational transformation through technology as a key competitive advantage in today’s competitive business environment focusing in different organization functionalities. In view with Leaders/Managers must acquire the new technological skills and competencies that will result in their emerging new role.

**Keywords:** Efficiency, Competitive, Transformation, Roles, Dynamics, leadership, recruiting, performance

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**A STUDY OF RECENT TRENDS IN WOMEN ENTREPRENEURSHIP**

**Paper ID - MBA044**

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**ABSTRACT**

The limit and ability to create compose and deal with a business wander alongside any of its dangers so as to make a benefit. The most reasonable case of enterprise is the beginning of new organizations. In financial aspects, enterprise joined with arrive, work, regular assets and capital can deliver benefit. Entrepreneurial soul is described by advancement and hazard taking, and is a basic piece of a country's capacity to prevail in a consistently changing and progressively focused worldwide commercial center. A few changes will come to fruition in this year and youthful business visionaries should remember the forthcoming patterns when they are beginning their business. Keep ahead with the most recent advances: It is critical that business people keep themselves mindful of the up and coming advances in the market. It would be a smart thought to tech counsels for giving your business avant-garde IT related data. Find capable workers: A business person won't have the capacity to pay a compensation as large as the effectively settled organizations. It is best for begin to search for representatives with aptitudes that can be created.

Development prompts the flow that administers the connection between science, industry, and society. Imaginative association needs should need to get ready for restoring the offerings and its conveyance procedure to its partners to make due in the present globalized world. In the present paper, idea of development and enterprise has been examined by the creators. The paper will likewise incorporate cases of inventive business visionaries and how the advancement in items/administrations enables the business in survival and development in display globalized to commercial center.

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**STUDY OF UNCONVENTIONAL MACHINING PROCESSES**

**Paper ID - MECH045**

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**ABSTRACT**

Unconventional manufacturing processes is defined as a group of processes that remove excess material by various techniques involving mechanical, thermal, electrical or chemical energy or combinations of these energies but do not use a sharp cutting tools as it needs to be used for traditional manufacturing processes. Extremely hard and brittle materials are difficult to machine by traditional machining processes such as turning, drilling, shaping and milling. Nontraditional machining processes, also called advanced manufacturing processes, are employed where traditional machining processes are not feasible, satisfactory or economical due to special reasons as outlined below.

- Very hard fragile materials difficult to clamp for traditional machining
- When the work piece is too flexible or slender
- When the shape of the part is too complex

Several types of non-traditional machining processes have been developed to meet extra required machining conditions. When these processes are employed properly, they offer many advantages over non-traditional machining processes. The common non- traditional machining processes are described in this section.

Manufacturing processes can be broadly divided into two groups.

- a) Primary manufacturing processes: Provide basic shape and size
- b) Secondary manufacturing processes: Provide final shape and size with tighter control on dimension, surface characteristics

Material Removal Processes Once Again Can Be Divided Into Two Groups

1. Conventional Machining Processes
2. Non-Traditional Manufacturing Processes or Unconventional Machining processes

Conventional Machining Processes mostly remove material in the form of chips by applying forces on the work material with a wedge shaped cutting tool that is harder than the work material under machining condition.

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**COMPARATIVE EXPERIMENTAL WORK FOR DIFFERENT CARBIDE TOOLS  
TO IMPROVING QUALITY**

**Paper ID - MECH046**

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**ABSTRACT**

Metal cutting is one of the most significant manufacturing processes in the area of material removal. Black defined metal cutting as the removal of metal chips from a work piece in order to obtain a finished product with desired attributes of size, shape, and surface roughness. The imperative objective of the science of metal cutting is the solution of practical problems associated with the efficient and precise removal of metal from work piece. It has been recognized that the reliable quantitative predictions of the various technological performance measures, preferably in the form of equations, are essential to develop optimization strategies for selecting cutting conditions in process planning.

In this thesis experiments are conducted to improve the surface finish quality of a work piece by using carbide tips. The type is bull nose tip. A series of experiments are done by varying the milling parameters spindle speed, feed rate and depth of cut.

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**FABRICATION OF RECORD AND PLAY ROBOTIC ARM USING 3D  
PRINTER**

**Paper ID - MECH047**

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**ABSTRACT**

As we aware of the thing that jobs which are repetitive are in the favor of killing the human creativity. In the long run world is getting better day to day. But some jobs are still stuck in the same accent. Due the many factors such as higher machinery cost, high availability of labor at low capital, lack of availability of modern equipment.

Robots have the potential to replace the humans at the manufacturing line. They complete the assigned work in the less time. Functionality of these robots is purely based on the instructions given to it in the form of program. Robots are highly reliable and works efficient they keep their high point in maintain the accuracy and precision. They can function round the clock and they are not relay on the seasons. In the broad view they help us to think differently by reducing the physical work, hence they are perfect for line and repetitive jobs. On the other hand they are high on cost, and their production craves for the highly skilled people. These robots are difficult to manufacture since it require greater amount of precision. To overcome such problems and to save the material to decrease the cost a new manufacturing process need to be adopted.

Additive manufacturing the term itself refers the process i.e manufacturing process in which material is melted to its melting point and joined to get the desired shape. In this kind of manufacturing process only one machine is enough to get the life for a design. Hence they is need not have heavy machinery and number of machines for different functions.

Robotic arm made out of additive manufacturing would reduce the cost and makes the manufacturing process a piece of cake to illustrate this and to study about the 3d printing and to draw out the challenges faced in such a manufacturing process we opted the design.



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**COMPARATIVE ANALYSIS OF DIFFERENT MATERIAL HANDLING  
EQUIPMENTS**

**Paper ID - MECH048**

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**ABSTRACT**

The movement of raw material, Semi-finished products and finished products through varied stages of production and storage is termed material handling. View of old tradition of material handling sees its operation as non-value adding and only contributing to the price of product. View of modern technology acknowledges the time and space utility of material handling operation. Equipment of Material handling is employed for output increase, control prices, and productivity maximization.

The various strategies used for material handling in vertical direction are inclined conveyor, lift, robots, spiral conveyors etc.

In this thesis, the design of material handling system using slider crank mechanism is compared with Lift System Conveyor and analyzed for their deformations, stresses, frequencies, directional deformations and shear stresses. The 3D models of both the designs are done in Creo 2.0.

Static Structural, Modal and Random Vibration analysis are done on both the designs by varying materials stainless Steel and Grey Cast Iron. The load applied on the Lift System Conveyor is 4 times more than that applied on the Slider Crank Mechanism.

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**OPTIMIZATION RESISTANCE SPOT WELDING PARAMETERS BY TAGUCHI  
METHOD TO IMPROVE WELD QUALITY**

**Paper ID - MECH049**

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**ABSTRACT**

The resistance spot welding process was introduced almost a hundred years ago. Since then, it has found extensive use in nearly all industries which need to join sheet metal parts together. In the automobile industry, Resistance spot welding (RSW) is widely used for its low cost, high speed, simple mechanism and applicability for automation. In particular, its use in the automotive industry is of great importance, since every car includes approximately 5000 spot welds in its assembly process. This project work deals with the optimization of various parameters of resistance spot welding to improve weld quality. The experimental studies to be conducted under varying welding force, welding current and welding time for joining of two DP steel sheets. In this investigation the quality characteristics (direct tensile strength and shear tensile strength) has been considered. D.P(dual phase) steel is used in this analysis as sheet metal works piece.

In order to extract the experiment data in a controlled way for Taguchi statistical analysis, L9 Orthogonal Array is to be used. In this study three levels are considered for each process parameter. The experiments will be conducted as per the pattern of L9 Orthogonal Array. The optimum welding parameter combination was obtained by using analysis of signal to noise(S/N) ratio. Analysis of variance (ANOVA) is the statistical treatment most commonly applied to the results of the experiments to determine the percentage contribution of each parameter against a stated level of confidence

The experiment results reveal that the most significant spot-welding parameters that are affecting the strength of the spot welded joint both in 1.5mm and 2mm. The optimum spot-welding parameters were established and they are confirmed by using validation experiments.

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**TIG WELDING PROCESS PARAMETERS OPTIMIZATION FOR STAINLESS  
STEEL MATERIALS USING REGRESSION ANALYSIS**

**Paper ID - MECH050**

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**ABSTRACT**

In today's manufacturing market, mainly quality and productivity play a significant role. Every manufacturing firm aims at producing a larger number of units within a short time. The experiments have been planned using the design of experiments and followed by regression analysis. The welding parameters used are Weld Current (I amps), Gas flow rate (FR L/min), and Root Gap (G mm). The effect of welding parameters on distortion (mm) and Tensile strength ( $N/mm^2$ ) is evaluated, and the optimum weld condition for minimizing the Distortion and Tensile strength is determined. An L4 orthogonal array was chosen for an experimental layout to analyze each parameter's effect on the welding characteristics and predict each weld parameter's optimal choice, such as weld current, Gas flow rate, and root gap. Analyzed the impact of this parameter in Distortion (D) and Tensile Strength (TS). Optimization of welding parameters is valuable in terms of providing high precision and efficient welding for massive structures. Optimization of welding parameters is essential for a manufacturing unit to respond effectively to fierce competitiveness and increasing demand for quality products in the market. In the welding process, the optimization of weld process parameters is considered a vital tool for improving the output quality and reducing the overall production time.

**Keywords:** Universal testing machine, TIG welding, Annova, etc.

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**THERMO ACOUSTIC REFRIGERATION SYSTEM FOR USE IN SPACE  
TECHNOLOGIE**

**Paper ID - MECH051**

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**ABSTRACT**

Thermo acoustic deals with the conversion of heat energy to sound energy or vice versa. Thermo acoustic cooling devices use the thermo acoustic principle to move heat using sound. They consist of a standing wave tube in which a stack of fractional wavelength creates a temperature gradient across the stack, facilitating heat flow. These devices are simple in design and have no harmful effects on the environment. However, their efficiencies are lower than the conventional vapor-compression refrigeration systems. In this study, the design, and development of a Thermo acoustic system for refrigeration application was considered. This study comprised two parts.. In the second parts, the refrigerator was fabricated based on the numerical design. The performance of the device was then tested and analyzed.

The numerical study has shown that the stack length and the position of the stack in the resonator have a significant impact on the overall performance of the thermo acoustic device. Air at standard temperature and pressure is employed as the working gas. The acoustic power source was a 15 W speaker operating at a frequency of 450 Hz. Based on a numerical study, the stack length was set equal to 3 cm with its center located at a distance of 5 cm from the driver-end of a 38.5 cm long resonator tube. The temperature difference between the two ends of the stack was set equal to 25 K.

The maximum coefficient of performance (COP) of this device was 1.5. Further research and development is needed in order to explore the full potential of the device in refrigeration applications.

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**STUDY OF WORN TOOL MACHINING PROCESS IN CLIMB AND  
CONVENTIONAL MILLING**

**Paper ID - MECH052**

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**ABSTRACT**

There are two distinct ways to cut materials when milling, conventional (up) milling and climb (down) milling processes. The variation between these two techniques is the relationship of the rotation of the cutter to the direction of feed. The objective of this study has to find out the optimal differences in tool materials by considering both cutting types and number of flutes. The practical study has been considered on EN24 material with both HSS and carbide tool with two flute and four flute milling cutters by using CNC BMV40 machining center. The work has been optimized by using Taguchi techniques of orthogonal arrays. The deformation result has been tabulated to check the variation in deformation of the component at different tools.

**Keywords:** Machining types; Worn Too; Optimization Techniques and Deformation.

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**GO-KART VEHICLE CHASSIS MODIFICATION USING ANSYS**

**Paper ID - MECH053**

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**ABSTRACT**

A off road vehicle (Go-Kart) is a small four-wheeled vehicle with open-wheels. Go-Karts come in all shapes and forms, from motor fewer models to high-powered racing machines. Go-Karts can be powered by 4-stroke engines or electric motors. The modeling of the go-kart is firmly based upon the driver ergonomics and the weight of the components like engine, steering column, transmission system and other components required to promote the motion of the Kart. All the modeling has to be done in such a way that the weight of the kart is minimum and the parameters defined are as per the standards mentioned in the 'World Karting Association'. The basic motto of the work is to design a go-kart which is safe and functional on rigid and torsional considerations by keeping a keen eye on the parameters mentioned as per the World Karting Association standards. The design chosen fits perfectly in the parameters as per the standards of the World Karting Association and which is also perfect in view of functional, safety and ergonomics according to driver feasibility. The design of kart is so easy that the chances of mistakes while manufacturing is reduced to a very lowest value.

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29th & 30th January 2021**

**DESIGN AND STRUCTURAL ANALYSIS OF BRAKE DISC BY VARYING BRAKE  
PRESSURE**

**Paper ID - MECH054**

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**ABSTRACT**

A brake is a device by means of which artificial frictional resistance is applied to the moving elements, in order to stop the motion of machine. Various types of forces are to be considered while applying the brake for the effective performance of braking effect. Initially the force applied by the driver on the brake pedal is multiplied as per the pedal ratio and this multiplied force is carried to the brake pads in disc caliper. As a result frictional force is developed at the contact area of disc surface and brake pads. This developed frictional force obstructs the motion of vehicle. The magnitude of the frictional force developed at contact surface of disc surface and brake pads basically depends on the force developed at the brake pedal due to pedal ratio. In this paper, brake performance is studied under varying brake pressure. This brake pressure depends upon the pedal ratio. Along with theoretical analysis software like ANSYS is used to determine the sustainability of the disc under varying load that are obtained by varying force applied on pedal and pedal ratios.

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**SOLAR POWER OPERATED GRASS CUTTER AND PESTICIDES SPREADER  
ROBOT**

**Paper ID - MECH055**

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**ABSTRACT**

A Solar Powered Automatic Grass Cutting and Pesticide Spreading robot project is mainly to reduce the manpower and usage of electricity. Solar panel is used to provide the source to the battery charging. It is an automated system for the purpose of grass cutting. The source is drive from the solar energy by using solar plate. The system control is done by the Bluetooth control. Automation is achieved by using sensors and Bluetooth controls. Wheels and cutting operations are done using dc motors. DC battery is utilized for powering and standby mode operation of the system. The whole supply is provided through the battery and to charge the battery charger circuit is used to provide the charging for the battery. Also the second application is that the spreading of pesticide here we used the water pump with spreading nozzle.



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29th & 30th January 2021**

**IMPROVED UPQC WITH STATCOM FOR GRID VOLTAGE REGULATION BY  
USING FUZZY LOGIC CONTROLLER**

**Paper ID - EEE056**

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**ABSTRACT**

This paper presents an improved controller for the dual topology of the unified power quality conditioner (iUPQC) extending its applicability in power-quality compensation, as well as in microgrid applications. The iUPQC will work as a static synchronous compensator (STATCOM) at the grid side, while providing also the conventional UPQC compensations at the load or microgrid side. Beyond the conventional UPQC power quality features, including voltage sag/swell compensation, the iUPQC will also provide reactive power support to regulate not only the load-bus voltage but also the voltage at the grid-side bus by using this controller. Simulation results are provided to verify the new functionality of the equipment.

**Index Terms**—iUPQC, power quality, static synchronous compensator (STATCOM), unified power quality conditioner (UPQC).

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29th & 30th January 2021**

**FLEXIBLE CONTROL SCHEME FOR A DYNAMIC VOLTAGE RESTORER FOR  
POWER-QUALITY IMPROVEMENT**

**Paper ID - EEE057**

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**ABSTRACT**

This paper presents the control framework dependent on the supposed tedious control for a five-level flying-capacitor dynamic voltage restorer (DVR). This DVR staggered geography is appropriate for medium-voltage applications and worked by the control conspire created in this paper. It can moderate force quality unsettling influences, for example, voltage lists, symphonious voltages, and voltage lopsided characteristics all the while inside a transfer speed. The control structure has been partitioned into three subsystems; the first improves the transient reaction of the channel used to wipe out the balance high-recurrence music, the subsequent one arrangement with the heap voltage; and the third is accused of keeping up adjusted voltages in the flying capacitors. The all around created graphical offices accessible in PSCAD/EMTDC are utilized to do all demonstrating parts of the dreary regulator and test framework. Reproduction results show that the control approach performs adequately and yields astounding voltage guideline.

**Keywords**— power quality, DVR, UPQC, voltage sags, overvoltage, harmonics voltage compensation, FACTS.

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29th & 30th January 2021**

**TRANSIENTS STABILITY IMPROVEMENT OF IEEE 10-BUS SYSTEM BY USING  
ASVC**

**Paper ID - EEE058**

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**ABSTRACT**

The objective of this paper is to determine the transient stability voltage improvement in of IEEE 10 Bus system using **ADVANCED STATIC VAR COMPENSATOR** is one of the **FACTS** devices which can make the power supply more efficient and reliable. Power systems are continuously subjected to various types of disturbances which in turn cause the problem of losing stability. Transient stability is one of the most important stability of the power system. To avoid voltage in stability problems advanced Static Var Compensator (SVC) built with a Thyristor Controlled Reactor (TCR) and its model are described. The model is based on representing the controller as variable impedance that changes with the firing angle of the TCR. In under damped Power systems disturbances lead power system into unstable state. So, the tools for mitigating such a sensitive problem have an important significance. Static VAR Compensator (SVC) can control reactive power and therefore it is used to improve transient stability as well as the voltage profile. The proposed work includes IEEE 10-Bus Test system incorporated with SVC controller using Mipower Software. The simulation shows how the oscillations are damped out with SVC controller.

**Keywords-** Power system modeling; Mipower software techniques; Simulations; Transient stability; SVC

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**SIMULATION AND DESIGN OF COMPACT INTEGRATED CONVERTERS  
MOTOR DRIVES FOR ELECTRIC VEHICLE, HYBRID ELECTRIC VEHICLE  
APPLICATIONS**

**Paper ID - EEE059**

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**ABSTRACT**

The recent emergence of plug-in electric vehicles in a global market can offer big challenges and opportunities for both basic and applied research. Although the electrical architecture of a Electric Vehicle (EV) or an Hybrid Electric Vehicle (HEV) can be considered standardized, the development of its different building blocks is an open problem whose solution could contribute to improve significantly the global performance of the vehicle.

**Keywords:** DC–DC converter, HEV, Boost converter.

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**AC-DC CONVERTER BASED HARMONIC MITIGATOR FOR VECTOR  
CONTROLLED INDUCTION MOTOR DRIVES**

**Paper ID - EEE060**

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**ABSTRACT**

This paper deals with Autotransformer based multipulse AC-DC converter with reduced magnetic feeding vector controlled industrial motor drives. This helps to improve the power quality at the point of common coupling. The proposed methods are 12-pulse and 18 pulse ac-dc converter based harmonic mitigator are implemented to eliminate 5<sup>th</sup>, 7<sup>th</sup>, 11<sup>th</sup>, 13<sup>th</sup> and 17<sup>th</sup> harmonics currents along with passive shunt filter to improve the power quality at AC Mains. The power quality parameters such as distortion factor, ripple factor and total harmonic distortion are also calculated for the proposed method. The results are carried out by MATLAB/Simulink software.

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29th & 30th January 2021**

**AN AUTONOMOUS PV-WIND-BATTERY BASED MICRO GRID OPERATED  
IN STANDALONE AND GRID-CONNECTED MODE**

**Paper ID - EEE061**

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**ABSTRACT**

This paper deals with the control of PWB (Photovoltaic-Wind-Battery) based MG (Micro-Grid) in standalone and grid-connected modes. The proposed MG works in standalone mode, and during peak load condition of the utility it is able to synchronize with the grid, and it operates in the grid- connected mode. In WECS (Wind Energy Conversion System), a SCIG (Squirrel Cage Induction Generator) is used to convert the wind energy into electrical energy. An INC (Incremental Conductance) based MPPT (Maximum Power Point Tracking) approach is used to extract maximum power from solar PV (Photovoltaic) array. The battery is connected at the DC-link of load/grid side VSC (Voltage Source Converter) for balancing the power flow in dynamic conditions of the system. In grid-connected mode, PL- EPLL (Pseudo-Linear-Enhanced Phase Locked Loop) based grid control algorithm is proposed to extract fundamental components of load currents. Along with grid synchronization and desynchronization, some ancillary services are also provided by the grid/load side VSC such as harmonics mitigation, load balancing and regulation of PCI (Point of Common Interconnection) voltages. The proposed MG is modeled, and its performance is simulated in MATLAB/ SIMULINK to verify the features of PWB based MG.

**Index terms-** PV, WECS, MPPT, microgrid, battery, synchronization, power quality.

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29th & 30th January 2021**

**A HIGH EFFICIENCY INDIRECT MATRIX CONVERTER BY USING RB-IGBTS**

**Paper ID - EEE062**

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**ABSTRACT**

This paper presents the design and construction of an Indirect Matrix Converter (IMC) utilizing newly available IGBTs with reverse voltage blocking capability (RB-IGBTs). The design process involves the characterization of the RB-IGBTs by measuring the on-state parameters and the switching behavior in the rectifier stage of an IMC topology. Based on analytical equations the semiconductor losses are calculated and are used to perform the thermal design and simulation of the cooling system. Experimental measurements demonstrate that the designed IMC is capable of generating sinusoidal input and output currents and that the RB-IGBTs ensure low rectifier stage conduction losses and/or high IMC power conversion efficiency.

**Keywords:** IMC, RB-IGBT's, CMC

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**DEVELOPMENT OF POLYMER SURGE ARRESTERS COVERING MV, HV, EHV  
& UHV**

**Paper ID - EEE063**

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**ABSTRACT**

Here in this paper we will study about development of polymer surge arrester covering MV, HV, EHV & UHV for that we have to study about proposed technical development in surge arresters, requirement of surge arresters and paradigm shift from porcelain to polymer arrester After introduction of fibre reinforced plastic (FRP) and silicone Rubber as insulation material for high voltage equipment.

**Keywords:**-polymer-MO-arresters, porcelain arresters , leakage current, metal-oxide varistor.



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29th & 30th January 2021**

**IMPLEMENTATION OF SVPWM TECHNIQUE TO VOLTAGE AND CURRENT  
SOURCE INVERTER**

**Paper ID - EEE064**

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**ABSTRACT**

The importance of this paper is implementation and control of the converters using space vector pulse width modulation (SVPWM) technique to VSI and CSI converters. The SVPWM pulses are given to converter and analyze the THD at different switching frequencies and comparing them on modulation index. This paper focuses on step-by-step development of SVPWM model and comparing them on various parameters. The three phase VSI and CSI models are discussed based on space vector theory. The simulation results are obtained for effectiveness of study

**Keywords**—VSI, CSI, SVPWM, THD, Modulation Index.

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**PROMINENCE OF PAY IN OVERALL HR STRATEGY:A CATALYST FOR  
CHANGE**

**Paper ID - MBA065**

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**ABSTRACT**

“Of all the problems faced by management, motivation must surely be ranked as one of the most intractable ...there is no single theory relating to motivation that can be completely and unqualifiedly accepted as accounting for all the known facts, and there is no definite set of prescriptions that are unequivocally supported by research data.”

*– Lyman W. Porter and Raymond E. Miles*

**INTRODUCTION**

Motivation originates from sources that are both external and internal to a person. While some prefer to be motivated from within, others want to be motivated by the organization. While some managers prefer that their employees be self-motivated, others want that responsibility to them. Of course, the views about the relationship between satisfaction and employee productivity do differ and there is conclusive research evidence to demonstrate their arguments. However, till date, one best way to all the employees continues to evade the practicing managers.

In this context, rewarding employees consistently, equitably, and fairly in tune with the Employee Value Proposition (EVP) has become a critical component in the compensation strategies designed and implemented for motivating the human resources of an organization. Employee-centered reward practices that are developed based on a compelling, relevant, and unique EVP—a magnet that attracts job candidates—do provide a consistent platform for employer branding and experience management as well. When organizations offer a set of

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ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY  
ICEMST-2021  
29th & 30th January 2021**

associations and offerings, employees provide, *in return*, a set of their own capacities, experiences, and skills.

Acting as a countervailing force, well thought through reward systems are the best panacea for attrition related HR issues and challenges. Employee-friendly compensation packages keep them happy, loyal, and satisfied. Performance-based pay, perks, and recognition also make them work harder, assume additional responsibilities, and take up more initiatives to climb up the organization ladder. Of course, organizations need to keep an effective Performance Management Systems in place that identify, track, monitor, and reward the deserving candidates in the most objectively verifiable manner based on the achievement of performance objectives. There are a host of factors such as an organization's culture and business strategy, employee needs, employee associations, the dynamics of the global competition, the socio-political context, and the fit between pay and the other HR systems. HR professionals are expected to assess the impingements of all these factors much before conceptualizing, designing, developing, and implementing a comprehensive compensation strategy to make it effective and successful. There are two contrasting perspectives in the context of designing a compensation system: a "best-fit"/contingent business strategy/environmental context approach and a "best-practices" approach. The former strategy presumes that one size doesn't fit all while the latter one assumes that there does exist a universal best way.

An attempt is made in this conceptual Paper to set up a debate over one simple and single proposition viz., ***The best-practices approach is superior to the "best-fit" approach when designing a compensation system***".

**Keywords:** HR Strategy; Compensation System; "Best-fit" Approach; "Best-practices" Approach.

**INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN  
ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY  
ICEMST-2021  
29th & 30th January 2021**

**MOTIVATION AND REWARD MANAGEMENT:  
AN EMPIRICAL STUDY WITH REFERENCE GREYHOUNDS**

**Paper ID - MBA066**

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**ABSTRACT**

Police personnel perform tasks such as maintaining law and order, investigation of corruption related cases, and dealing with naxalism and terrorism. Of late, one of the greatest challenges police organizations are facing is motivating people to join police forces that involve high risk to their lives. Of course, the focus of HR professionals today is on a winning formula viz., *Performance through people* and good people management always aims to produce higher levels of employee motivation. There can be no two opinions on the fact that management of rewards, if carried out intelligently, provides the much needed means for achieving the targeted levels of employee motivation. For this research study, Greyhounds Unit of Telangana, which deals with the problem of *naxal violence* i.e., extremism, involving a grave risk to life has been chosen.

**Ø Objectives of the Study**

- To examine the relationship between motivation and the extrinsic rewards offered to the police personnel to join Greyhounds
- To study the efficacy of the extrinsic rewards in their motivational appeal while the police officers are on the 'deputation period'
- To find out whether the culture prevailing in Greyhounds is conducive for its officers to perform better
- To explore the opportunities available for organizational learning

**Ø Hypothesis**

*"Offering higher pay is the real motivational factor for joining jobs that involve grave risk to life in Greyhounds"*

**Ø Methodology**

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ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY  
ICEMST-2021  
29th & 30th January 2021**

Survey method will be adopted to elicit the opinions from the police officers (the Respondents) and a personal interview method will also be used in respect of high ranking officials.

**Ø Tools of Data Collection**

- Schedules will be utilized to get information from the respondents in addition to oral interaction with key police personnel.

**Ø Sampling Type**

- Stratified random sampling method will be used to identify the respondents from the population as the Police personnel are working in various ranks and 10% of staff under each rank would be selected randomly from the duly identified population after properly obtaining their names.

The Paper, towards the end, discusses the results of the study based on the quantitative approach and statistical tools adopted and summarizes the findings of the research and presents the practical and research implications of the study.

**INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN  
ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY  
ICEMST-2021  
29th & 30th January 2021**

**EFFECT OF HERBICIDES ON MYCOFLORA OF RICE FIELD SOILS**

**Paper ID - H&S067**

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**ABSTRACT**

Microbial degradation occurs when microbes such as fungi and bacteria utilize the pesticide as a source of food. An increase in the biological capacity of the soil to degrade pesticides/herbicides is attributed to the proliferation of microbes using the pesticide as a source of carbon and Nitrogen/ or energy. Herbicides glyphosate, topstar and butachlor are used in Nalgonda district of Andhra pradesh, for controlling weeds in rice fields. The impact of herbicide application on soil mycofloristics was assessed in the present study employing czapek dox agar (CZA) during Kharif and Rabi seasons. The fungi, thus isolated from different herbicide treated soils were tested for their ability to tolerate the herbicide butachlor. The herbicide butachlor has no effect on fungus growth at 20ppm concentration. Majority of fungi tolerated low levels (20ppm) of butachlor as evident from their high growth. At 50ppm concentration some fungi failed to grow well while many could exhibit good growth even at this concentration. At 100ppm concentration majority of fungi failed to grow well while few fungi exhibited good growth even at this concentration. These fungi include *Aspergillus niger*, *A. terreus*, *Trichoderma aureoviride*, *T. atroviride* and *T. longibrachiatum*. These fungi were selected for further studies to assess their ability to utilize and degrade the selected herbicide, butachlor.

**Key words:** Rice, soils, glyphosate, oxydiargyl, butachlor, fungi

**INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN  
ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY  
ICEMST-2021  
29th & 30th January 2021**

**GENERALIZATION OF RHODES THEOREM TO  
A SEQUENCE OF SELF MAPS**

**Paper ID - H&S068**

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**ABSTRACT**

In this research article we considered a sequence of self maps on a complete 2-metric space satisfying contractive type condition. The Rhodes fixed point theorem can be obtained as a corollary to this generalization

**AMS Subject Classification** 47H10, 54H25

**Key words:** Fixed point, 2- Metric space , Cauchy sequence, Self mapping

**INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN  
ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY  
ICEMST-2021  
29th & 30th January 2021**

**GLOBALIZATION: ITS IMPACT ON THE USE OF ENGLISH LANGUAGE**

**PAPER ID - H&S069**

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**ABSTRACT**

This study examines the effect of globalization on the English language usage. Globalization, “is the increased interconnectedness and interdependence of people and countries” WHO (World Health Organization) (2021). Globalization has a direct effect on language learning and particularly on the English language. Globalization resulted into several changes throughout the world. These changes include cultural, economical, social, etc. The renewed interest of the last twenty years in English language among people throughout the world has been linked to technological developments in different sectors. A number of people, who are using English language, are increasing day-by-day. Demand for using and learning English language is growing because of better employment opportunities, social recognition, increased business opportunities, the smooth running of day-to-day activities, it is fashionable, it is modern, etc. As a result of globalization; the changes in the English language can be lexical, phonetic, morphological, semantic, syntactic, etc. As a result of these changes some non-standard varieties of English are also in vogue.

**Key words:** Globalization, use of English, impact on English, employable opportunities



**INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN  
ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY  
ICEMST-2021  
29th & 30th January 2021**

**MOLECULAR COMPLEXES OF ROSUVASTATIN CALCIUM WITH -  
ACCEPTORS**

**Paper ID - H&S070**

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**ABSTRACT**

The molecular reaction of Rosu-Ca, with various  $\pi$ -acceptors like tetracyanoethylene, p-chloranilic acid, 2,3-dichloro-5,6-dicyano-1,4-benzoquinone, 2,3,5,6-tetrabromo-1,4-benzoquinone, 1,3,5-trinitrobenzene, 2,3,5,6-tetrachloro-1,4-benzoquinone, 7,7,8,8-tetracyano-quinodimethane, and 2,4,7-trinitro-9-fluorenone gives CT complexes w. The donar and acceptor correlation was determined by uv-visible spectrophotometric techniques. The obtained colored complexes was use for the development of accurate spectrophotometric methods for the determination of Rosu-Ca. The absorbances, concentrations of Rosu-Ca is in the range of 2–200  $\mu\text{g mL}^{-1}$  under the optimum reaction conditions, linear relationships with good correlation coefficients (0.9984–0.9995). The detection limit range is from 0.41 to 12.24  $\mu\text{g mL}^{-1}$ . Interference could not be observed from the additives which are present in the drugs that were co-related with RoSu-Ca. These methods are successfully applied for analysis of drugs with good accuracy. The range of recovery percentages were from 99.54–100.46  $\pm$  1.58–1.82%. The proposed methods are practical and valuable for drug analysis.

**Keywords:** Rosuvastatin Calcium, Molecular complexes, Spectrophotometry, HPLC, CT complexes.

**INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN  
ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY  
ICEMST-2021  
29th & 30th January 2021**

**VERTICAL CHARACTERISTICS OF MARINE BOUNDARY LAYER OVER  
PALAU**

**Paper ID - H&S071**

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**ABSTRACT**

Atmospheric Boundary Layer (ABL) over land and ocean surface is quite different because of the differing dynamic and thermodynamic characteristics of both the surface. The structure and characteristics of the ABL over the oceanic surface, often known as the Marine Boundary Layer (MBL) plays an important role in regulating the surface energy, moisture fluxes and in controlling the convective transfer of energy moisture of the free atmosphere. It is imperative for coupled ocean-atmosphere modeling and numerical weather prediction. PALAU (Pacific Area Long-term Atmospheric observation for the Understanding of climate change) over Aimeliik state of Babeldaob Island (7.45° N; 134.47° E) of Republic of Palau field study can advance our knowledge of marine stratocumulus by providing information on the boundary layer and cloud structure, as well as their diurnal cycle.

An important parameter of the MBL is the MBL height that is controlled by surface forcing and entrainment at the MBL top as well as by advection areas. The MBL height has been progressively recognized as playing a key role in the surface layer turbulence structure, and the interplay of processes at different spatial and temporal scales. The MBL height and its dynamics, which governs ocean-atmosphere interaction, has been the main subject for coupled ocean-atmosphere modeling and numerical weather prediction. Further, the MBL dynamics influence transport, lifetimes and diurnal cycles of aerosols and particulate matters. The marine aerosol particles affect radiation budget and cloud process in a complicated manner because of their complex vertical variability. Hence, the detailed observations of MBL variables are essential to improve modeling and simulation of transport processes, cloud and precipitation development.

**INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN  
ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY  
ICEMST-2021  
29th & 30th January 2021**

**APPLICATIONS OF SURFACE INTEGRALS IN FLUID DYNAMICS**

**Paper ID - H&S072**

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**ABSTRACT**

Based on the known facts of application of surface integrals on fluid dynamics says that , if vector field  $F$  represents flow of a fluid then the surface integral of  $F$  will represent the amount of fluid flowing through the surface (per unit time ).

It is also defined that , the amount of the fluid flowing through the surface per unit time is FLUX of fluid through the surface. So we call surface integral of vector field is a FLUX INTEGRAL.

The main idea of the subject explains us that , if fluid is flowing perpendicular to the surface, the maximum fluid flows hence the flux is large. Whereas if fluid flows parallel to the surface flux is zero.

Further , calculation of total amount of fluid flowing through the surface is obtained by adding up the component of vector  $F$  that is perpendicular to the surface.

**INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN  
ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY  
ICEMST-2021  
29th & 30th January 2021**

**ENGLISH COMMUNICATION CONVERTS INTO POWERFUL EXPRESSION**

**Paper ID - H&S073**

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**ABSTRACT**

With growing importance of English as a global language, communication skills in English is very important for the powerful expressions in different global professions. Powerful communication in English and English language skills play key role in increasing the employability of the candidates across the world.

The basic objective of the powerful communication in English to prepare the candidates to use English effectively, communicate confidently and powerfully in different contexts of daily situations. The good language skills required for the work place as well as for social interaction and personal growth in one's chosen profession.

To make, the learning more comprehensive for the powerful communication, the following skills in English is required. 1. Listening 2. Speaking 3. Reading 4. Writing 5. Vocabulary 6. Grammar 7. Pronunciation 8. Conversations 9. Comprehension 10. Some fixed expressions in English.

Powerful English communication skills is very essential for the global opportunities in the world.

**Keywords:** 1. Communication 2. Powerful expression 3. Key role 4. Global professions 5. Employability 6. Social interaction 7. Personal growth.

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ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY  
ICEMST-2021  
29th & 30th January 2021**

**ULTRASONIC VELOCITY MEASUREMENT ON FRUIT SYRUP**

**PAPER ID - H&S074**

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**ABSTRACT**

The ultrasonic parameters were carried out at a frequency of 3 MHz using pulse technique and compared with pulse echo overlap (PEO) technique on different fruit syrup at different temperatures between 10 of 40oC with optical density 1.0. The values of acoustic impedance ( $Z$ ), isotropic compressibility ( $K_e$ ) and attenuation coefficient ( $\alpha$ ) were calculated from measurement values of ultrasonic velocity ( $v$ ), echo amplitude ( $a_o$ ) and density ( $\rho$ ). The ultrasonic velocity values were correlated with Jacobson's[1] free length theory (FLT). The variation of ultrasonic parameter with different fruit syrup has been interpreted in this publication.

**Keywords:** Fruit syrup, Pulse Eco Overlap, Enzymatic extraction, Ultrasonic velocity.

**INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN  
ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY  
ICEMST-2021  
29th & 30th January 2021**

**COMMUNICATION SKILLS IN EMPLOYABILITY OPPORTUNITIES**

**Paper ID - H&S 075**

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**ABSTRACT**

Communication is the ability to communicate with others effectively. Communication skills play an important role in this competitive world and are one of the essential parts of almost any job. This paper highlights the importance of communication skills in employability and discusses various suggestions for improving communication skills for better employability. We know communication is among the most commonly listed employability skills for jobs and is in demand across most industries, disciplines and professions. Employers look for candidates with strong communication skills like strong written, verbal, and nonverbal communication skills. In professional life communication skills are the key to build relationships. The ability to communicate effectively is very important and enhance accordingly is also important in professional life. It helps us to get along with colleagues and understand the importance of interacting with others at workplace. The inability to communicate with others can lead to a lot of problems both personally and professionally. A person may have good knowledge on the academics, but having only subject knowledge is not sufficient for achieving job. In this competitive world a person's performance is evaluated mainly on the basis of the ability to communicate effectively. To be successful in professional life a person needs to adopt all the skills required and apply them in the respective field. Personality development of a person remains incomplete, if the communication skills are ignored. Many people fail to impress their employees/recruiters due to lack of communication skills even though they are strong in academics. Communication skills and Employability skills enable the learner to with stand the increasing levels of competition at every phase of life.

**Keywords:** Communication, employability, verbal and nonverbal communication.

**INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN  
ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY  
ICEMST-2021  
29th & 30th January 2021**

**SURVEY ON COVID-19 PATIENTS AND ON THE VACCINATED INDIVIDUALS**

**Paper ID - BF076**

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**ABSTRACT**

COVID-19 pandemic has brought many changes into the society. The world economy in 2020 is largely affected due to COVID-19. Global travel has been minimized leaving tremendous loss in the air lines industry. Even if the vaccine arrival into the market in the US is a big relief, the side effects are the concern. In this paper I recommend that more research is required to find a solution to the current situation. Firstly, there must be a survey conducted with all the individuals who were affected with COVID-19. This survey must be at the global level and should be unique. The survey questions are based on how severe the infection was and what were the symptoms and how many days it took for the patient to recover, is the patient hospitalized etc,. The survey would collaborate the information on different experiences of different patients. The responses from the survey can then be subjected to data analytics to understand the different patterns of COVID-19 behaviour. Secondly, another survey must be conducted on the individuals who took the vaccine. The vaccine acts differently in different individuals. So, it is important to study this Vaccine effects. This survey can be conducted at national level as different nations are developing different vaccines. Observing the behaviour pattern of COVID-19 obtained from the first survey and comparing it with the vaccine effects (survey results obtained from the second Survey) would help the individuals improve their health. It is also important to follow up on the patients who are recovered from the COVID-19 infection as there could be post infection effect. Data analytical tools and artificial intelligence can be used to keep track of the COVID-19 patients.

**INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN  
ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY  
ICEMST-2021  
29th & 30th January 2021**

**MANUFACTURING OF BRICKS FROM COFFEE, CRUSHED GLASS AND CLAY  
USING GEO-POLYMERISATION TECHNIQUE AT 200C, 110C**

**Paper ID - MECH077**

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**ABSTRACT**

Coffee has become essential in our day to day life. In this thesis we are going to make clay bricks using coffee ground waste as a substitute which is thrown away by many coffee shops. This coffee waste is used to incorporate the brick making process. We are going to make 2 types of sample one is incorporation of coffee in clay brick, the other one is incorporation of coffee waste along with crushed glass by geo polymerisation technique. These bricks can be used in construction of buildings and Roads and also for utilized as load bearing components in construction. load test will be performed on all samples to know bricks breakable strength.



**INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN  
ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY  
ICEMST-2021  
29th & 30th January 2021**

**THE ROLE OF VERBAL LINGUISTIC INTELLIGENCE IN ESL LEARNER'S  
ACADEMIC PERFORMANCE AT UNDERGRADUATE LEVEL**

**Paper ID - ENG078**

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**ABSTRACT**

This study was aimed at identifying the effects of verbal- linguistic intelligence on the academic performance of Telangana social welfare undergraduate ESL Learners. The participants of this study were TSWRDC (Telangana social welfare residential degree college for women) 2<sup>nd</sup> year undergraduate ESL learners. A questionnaire and informal interviews were used and empirically analysed to assess learners academic achievement referred to the English verbal linguistic intelligence in subjects obtained from their academic classes. The data was analysed. The results revealed that there was a significant correlation between verbal linguistic intelligence and the academic performance of ESL learners. Moreover, it also indicated that verbal linguistic intelligence was a better predictor of their academic performance.

**INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN  
ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY  
ICEMST-2021  
29th & 30th January 2021**

**FINITE ELEMENT ANALYSIS OF AIRCRAFT WING USING CARBON FIBER  
REINFORCED POLYMER**

**Paper ID - AE079**

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**ABSTRACT**

The aim of this present study is to analyze the wing of an aircraft using Carbon fiber reinforced polymer (CRFP) and compare with Al alloy to find suitable material for wing. The wing is designed in solid modeling software CATIA V5 R20 and analysis is done using finite element method by using ANSYS. Static structural analysis of the wing is done to find deformation, stress, and strain induced in the wing structure. Modal analysis is done to find the natural frequency of the wing to reduce the noise and avoid vibration. Finally fatigue life analysis is carried out to find out the damage, life and factor of safety of the wing due to applied pressure loads. In this study, the trainer aircraft wing structure with skin, 2 spars and 15 ribs is considered for the analysis. The ribs are running from leading edge to trailing edge and 2 spars running longitudinally along the length of wing. Front spar is made "I" section and rear spar having "C" section according to design.

**INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN  
ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY  
ICEMST-2021  
29th & 30th January 2021**

**COMPUTATIONAL ANALYSIS OF A TRUSS TYPE FUSELAGE**

**Paper ID - AE080**

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**ABSTRACT**

This paper deals with the computational analysis of truss type fuselage. The fuselage is of welded tubular steel fabric-covered construction. The fuselage geometry has been modeled using a CATIA design software. The main dimensions were obtained using 2-D drawings, due to lack of documents extracted experimentally from a built aircraft some dimensions and data are missing. Aerodynamic loads were determined using computational fluid dynamic program for the horizontal tail. Static structural analysis was conducted by finite element method (FEM) using fastened connection property between the tubes. The results were observed in three main parts; rear part which supports the vertical and horizontal stabilizers and the rear landing gear; the mid part which provides cantilever reaction for the wing and supports front landing gear, and the front part on which the engine is mounted. The Von Mises stresses, displacements and principal stresses were observed in the three parts and found acceptable except for a small region near the attachment between wing and fuselage. However, further experimental validation is needed. Presently, experimental and dynamic analyses are being conducted and the results will be published later.

**INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN  
ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY  
ICEMST-2021  
29th & 30th January 2021**

**FEM ANALYSIS OF FUSELAGE SKIN USING GLASS FIBER REINFORCED  
POLYMER**

**Paper ID - AE081**

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**ABSTRACT**

A wing is a structural component of aircraft which is used to produce lift during the flight. Wing is initially inclined at certain angle of attack. When the flow passes over it, due to the pressure difference at top and bottom surface of the wing lift force is generated. The aim of this present study is to analyze the wing of an aircraft using Glass fiber reinforced polymer (GRFP) and compare with aluminum alloy to find suitable material for wing. The wing is designed in solid modeling software CATIA V5 R20 and analysis is done using FEM by using ANSYS. Static structural analysis of the wing is done to find total deformation and strain induced in the wing structure. Modal analysis is done to find the natural frequency of the wing to reduce the noise and avoid vibration. Finally fatigue life analysis is carried out to find out the damage, life and factor of safety of the wing due to applied pressure loads.

**INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN  
ENGINEERING, MANAGEMENT, SCIENCE AND TECHNOLOGY  
ICEMST-2021  
29th & 30th January 2021**

**STATIC STRESS ANALYSIS & NORMAL MODE ANALYSIS OF HORIZONTAL  
TAIL STRUCTURE**

**Paper ID - AE082**

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**ABSTRACT**

The horizontal stabilizer prevents pitching motion of the aircraft nose. Aluminum alloy, titanium alloy, fiber reinforced composites are the materials used for the construction of horizontal tail. Recently composite materials have been used widely instead of metallic materials. Composite materials are well known for their excellent combination of high structural stiffness and low weight. CFC is seen to have a modulus twice & strength three times that of aluminum alloy, the conventional material used in aircraft construction. In the present work we are going to compare the percentage of weight for both carbon fiber composite material and aluminum alloy 2015 series. The parametric study conducted using ANSYS. From the studies conducted regarding the weight reduction, it is estimated that replacement of Al alloy by CFC results in 54.73% saving in the total structural weight of the aircraft Horizontal Tail. The normal mode analysis the resonance frequency of aircraft is 10Hz but for Horizontal tail the frequency is almost zero so the design is safe.

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**GOODS AND SERVICE TAX-PERCEPTIONS OF SMALL &MEDIUM  
BUSINESSES (WITH SPECIAL REFERENCE TO NALGONDA DISRICT)**

**Paper ID - MBA083**

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**ABSTRACT**

This study was aimed at goods and services tax perceptions of small and medium businesses, the participants of this study were rice millers of Miryalaguda Nalgonda district. A questionnaire and informal interviews were used and empirically analyzed to assess the opinion on gst which was newly introduced. The data was analyzed the results of changes in tax system

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**A SECURED IOT INFRASTRUCTURE USING BLOCKCHAIN DECENTRALIZED  
APPROACH**

**Paper ID - CSE084**

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**ABSTRACT**

IOT is the technology to connect the physical things such as (AC, fridge, car, phone) etc to the internet so that they can communicate with each other without the human interference. IOT devices usually consists of sensors and microcontrollers. Where security plays vital role while data transmission or communication between things over network. In this context a robust IoT solution approach should focus not only securing the infrastructure and devices, which forms the base of IoT system, but also should develop the accurate level of data privacy and building trust with regulators and customers. In this paper we suggest that blockchain is promising for IoT security, It assures that the data is legitimate over the communication process. Blockchain IoT solution could ensure secure messaging between devices on IoT networks.

**Keywords:** Internet of Things, Blockchain, Decentralization, IoT security.

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**ANALYSIS OF THE SPRAYING PROCESS IN THERMAL POWER PLANTS**

**Paper ID -MECH085**

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**ABSTRACT**

A coating may be a covering method that's applied to the surface of a fabric that is referred to because the substrate. The coating itself is either utterly coated through the total surface or the particular elements of the substrate. Thermal spray coating is one in every of the foremost effective ways to shield the new elements from wear, high temperature corrosion, residual stresses, erosion, and to produce exhausting and dense coatings, therefore life of material is multiplied. During this method, comparatively thick gilded, polymer, ceramic and composite coatings is deposited. The optimum coating method is chosen on the idea of desired coating properties. Coating material is either within the type of wire, powder, rod, wire or molten-bath kind. The procedure is manual, mechanized or absolutely machine-driven. This paper reviews the previous research in the sector of thermal spray coating.

**Keywords:** Thermal spray coating, high velocity oxygen fuel coating, detonation gun coating, characterization.



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**COMPREHENSIVE REVIEW ON KINEMATIC ANALYSIS AND APPLICATIONS  
OF ROBOT MANIPULATORS**

**Paper ID-MECH86**

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**ABSTRACT**

Robotic systems possess diverse effectors and receptors influencing their capabilities. For this reason description of robot tasks in a human-understandable form, being strict and abstracting the hardware limitations at the one hand, yet enabling straightforward transformation into robot actions at the other, has been elusive. Herein we propose a method of specification of tasks in terms of abstract object-level relations. This approach imposes the introduction of manipulation primitives modifying those relations by influencing object parameters. In this article the review of robotic manipulators are taken as a project and the different type of manipulators kinematic modelling and analysis is explained. The optimization is the process of selecting the best parameter for that suits the task. The optimization literature is explained in this article. This article is useful to beginners to get basic understanding of robotic manipulators.

**Keywords:** Robotic manipulators, Kinematic Analysis, applications, optimization.

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**MANAGING AND MAKING VIRTUAL INTERNSHIP PROGRAMS WORK  
DURING THE PANDEMIC TIMES**

**Paper ID - MBA087**

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**ABSTRACT**

At a time when the COVID-19 was fast spreading across the nation, the opportunities for summer internship postings from corporates virtually evaporated. This is mostly attributable to the fact that organizations of every description were gearing themselves for responding to and making the needed adjustments to deal with the unparalleled set of circumstances. Summer internships provide an excellent opportunity for the interns to build professional and networking skills as graduating students. Traditionally, internships always provided a “win-win” solution to both the interns and the host organizations as well. A majority of employers always motivate and expect their former interns to join their organizations as regular employees as they make better hires with higher chances of accepting the job offers. Moreover, they are expected not only to outshine their associates and peers but also have lower attrition rates. It is, however, a little intriguing that remote internships never gained popularity despite their distinct possibility. The moot point is if employees working remotely can be productive, we can expect the interns also to be so during their internships.

Some of the well-designed and seriously conducted two/three month long internships typically incorporate highly challenging real-life assignments, career-enhancement sessions, “deep business learning”, besides opportunities for networking. They have the potential to transform the very trajectories of their professional careers in future though HR professionals need to take up the challenge of inducting the interns into the organization’s culture remotely. Cancelling the internships altogether by the employers was an alternative as the risks posed by the corona virus did make moving the interns across the nation for the traditional in-person internships very much problematic though not impossible. But it was not a wise choice as the programs act as an ideal channel into an organization’s talent pool.

Even during the outbreak of corona virus, many of the college students could succeed in searching for the mandatory summer internships across the local, national, and even international boundaries. Despite being online in nature, such internships can be leveraged effectively to garner experience and search for job opportunities later on—be it through internal recruitment or by way of networking with business organizations. An attempt is made in this concept paper to suggest ways and means whereby a meaningful and highly engaging internship experience could be provided remotely at a time when most of the graduating students pursuing professional courses woefully missed out the conventional internships.

**Key Words:** Internships; Interns; Covid-19; Virtual Internships

**DISCOVERING TRENDING NEW TOPICS FROM SOCIAL  
MEDIA**

**Paper ID - MBA088**

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**ABSTRACT:**

Social networking is a web-based technology to facilitate social interaction between a large group of individuals via some kind of network. Social networking is growing rapidly and becoming an inevitable part of daily life, due to the most recent technological revolution. This stunning growth is because of the increasing usage of smartphones like BlackBerrys, Q-Mobile, Androids, and iPhones. These wise phones make it easy to get any social networking platform from anywhere virtually. The cellular versions of those social media websites are very easy to get made it user friendly. In addition to the Map, services created a remarkable use through mobile to find places and direction easily. Now days social media news is well liked and creates new era for communication in the world but many social media platforms are generating different news so focusing this news or classifying these news are difficult because all these are unstructured format, in this paper focusing on different researchers' intension towards analyzing social media news as well as discovering efficient trending news from this news is studied.

**KEYWORDS:** Social Networking, Face Book and Big data

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29th & 30th January 2021**

**UNDERSTANDING A PRIVATE CLOUD AS A PROPRIETY NETWORKS FOR  
HOSTED SERVICE AT PUBLIC LEVEL AND PRIVATE LEVEL**

**Paper ID - CSE089**

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**Abstract:**

The main objective of the Private Cloud Hosting platforms is to optimize IT resources involved in the cycle of corporate provisioning, delivery, monitoring and control of business-critical applications: the elasticity of supply storage, processing and networking, on-demand access to systems, self-provisioning by the user or workgroup, through a centralized management dashboard unified system administrators, workgroup managers and end users. The decision to pursue cloud computing is one that many organizations have or will make as this technology grows and matures. But this decision need not be one fraught with uncertainty. With a little due diligence, and answering a few key questions, you can ensure that your cloud vendor selection is a sound one. Nature of public cloud architecture depends upon sharing and accessing data within inhouse It premises as well as third parties. Although, this type of cloud form does raise an alarm in terms of security, but is equally efficient like private cloud architecture. Factors like scaled up environment and bandwidth uptime are also catered in this type of cloud form.

**Keyword:** Public, Hybrid, Offline, Platform.

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29th & 30th January 2021**

**STUDY OF CONTAMINANTS INDEX OF MUSI RIVER COMMAND AREA**

**Paper ID - EVS090**

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**ABSTRACT**

The cause of this study is to investigate the broad Contaminants Index (CCI) of the study area vicinity with a view to investigate the water pollution level of the four hundred-year-antique Musi River located in Hyderabad Telangana. The study is done in view of sustainable development. Water samples had been gathered from villages, which might be 15 km away from each other as a consequence, a complete of 60 km downstream villages belt were considered to examine the contaminants index. A composite sampling technique is used to collect samples from sampling locations following a standard way to obtain a representative samples. There were total 9 physiochemical properties had been analyzed and the facts had been seen in comparison with (WHO) and BIS standards. The complete pollution index values for the four sampling sites are 2.0, 1.61, 1.4 and 1.thirteen, respectively, indicating that the pollution in the direction of the downstream is reducing but, those areas are considered as medium polluted due to the fact these values fall into category four consistent with the CPI score. At the start of the have a look at place, CPI suggests excessive eutrophication hazard. This look at can be an alternative for determining the level of pollution, indicating pollutants, and decision making of the use of water.

**Keywords:** CPI, Musiriver, Downstream, and Pollution.

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ICEMST-2021  
29th & 30th January 2021**

**INTERNATIONAL CONFERENCE ON RECENT CHALLENGES IN  
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**Paper ID - MGMT091**

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**ABSTRACT**

At a time when the COVID-19 was fast spreading across the nation, the opportunities for summer internship postings from corporates virtually evaporated. This is mostly attributable to the fact that organizations of every description were gearing themselves for responding to and making the needed adjustments to deal with the unparalleled set of circumstances. Summer internships provide an excellent opportunity for the interns to build professional and networking skills as graduating students. Traditionally, internships always provided a “win-win” solution to both the interns and the host organizations as well. A majority of employers always motivate and expect their former interns to join their organizations as regular employees as they make better hires with higher chances of accepting the job offers. Moreover, they are expected not only to outshine their associates and peers but also have lower attrition rates. It is, however, a little intriguing that remote internships never gained popularity despite their distinct possibility. The moot point is if employees working remotely can be productive, we can expect the interns also to be so during their internships.

Some of the well-designed and seriously conducted two/three month long internships typically incorporate highly challenging real-life assignments, career-enhancement sessions, “deep business learning”, besides opportunities for networking. They have the potential to transform the very trajectories of their professional careers in future though HR professionals need to take up the challenge of inducting the interns into the organization's culture remotely. Cancelling the internships altogether by the employers was an alternative as the risks posed by the corona virus did make moving the interns across the nation for the traditional in-person internships very much problematic though not impossible. But it was not a wise choice as the programs act as an ideal channel into an organization's talent pool.

Even during the outbreak of coronavirus, many of the college students could succeed in searching for the mandatory summer internships across the local, national, and even international boundaries. Despite being online in nature, such internships can be leveraged effectively to garner experience and search for job opportunities later on—be it through internal recruitment or by way of networking with business organizations. An attempt is made in this concept paper to suggest ways and means whereby a meaningful and highly engaging internship experience could be provided remotely at a time when most of the graduating students pursuing professional courses woefully missed out the conventional internships.

**Key Words:** Internships; Interns; Covid-19; Virtual Internships.

**AN INTERACTIVE MAP REDUCE BASED ON SUBGRAPH MINING  
ALGORITHM**

**Paper ID - MGMT092**

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**ABSTRACT**

Nowadays, a leading instance of big data is represented by Web data that lead to the definition of so-called big Web data. Indeed, extending beyond to a large number of critical applications (e.g., Web advertisement), these data expose several characteristics that clearly adhere to the well-known 3V properties (i.e., volume, velocity, variety). Resource Description Framework (RDF) is a significant formalism and language for the so-called Semantic Web, due to the fact that a very wide family of Web entities can be naturally modeled in a graph-shaped manner. In this context, RDF graphs play a first-class role, because they are widely used in the context of modern Web applications and systems, including the emerging context of social networks. When RDF graphs are defined on top of big (Web) data, they lead to the so-called large-scale RDF graphs, which reasonably populate the next-generation Semantic Web. In order to process such kind of big data, MapReduce, an open source computational framework specifically tailored to big data processing, has emerged during the last years as the reference implementation for this critical setting. In line with this trend, in this paper, we present an approach for efficiently implementing traversals of large-scale RDF graphs over MapReduce that is based on the Breadth First Search (BFS) strategy for visiting (RDF) graphs to be decomposed and processed according to the MapReduce framework. We demonstrate how such implementation speeds-up the analysis of RDF graphs with respect to competitor approaches. Experimental results clearly support our contributions.

**Keywords:** MapReduce algorithms; BFS-traversals of RDF graphs; effective and efficient algorithms for big data processing

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**Performance Evaluation Hybrid Precoding For 6G Terahertz Wireless  
Tech-Era**

**Paper ID - ECE093**

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Abstract -In this research, it has been investigated about the Fully connected (FC) precoding architecture into the THz for 6G wireless communication. The precoding architecture of THz FC hybrid is derived by its spectral efficiency. With the influence of this architecture, algorithm with low-complexity column by column has been proposed in THz FC hybrid precoding. As per simulation output, it shows that spectral efficiency of the algorithm with CBC proposes digital precoding scheme, simultaneously it performs as low complexity in existing algorithm. As the spectral efficiency of FC hybrid precoding has accuracy. Later, THz hybrid precoding problems has been presented. In 6G communication greater number of data transmission at a time in free space communication. Compared to state-of-art methods minimizing error rate and improve signal to noise ratio in trending 6G technology.

*Index Terms—Terahertz band, 6G, Hybrid precoding. BER performance, Noise ration analysis.*



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**WOMEN ENTREPRENEURSHIP IN INDIAN**

**Paper ID - MGMT094**

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**ABSTRACT**

Business venture of Women development is a fundamental piece of human asset. Advancement Compared to different nations the improvement of ladies business is extremely low in India, particularly in the rustic zones. Notwithstanding, ladies of working class are not very anxious to change their job in dread of social backlash. The advancement is more apparent among high society families in metropolitan urban communities. This paper centers around ladies business visionary. Any comprehension of Indian ladies, of their personality, and particularly of their job taking and breaking new ways, will be fragmented without a stroll down the spot of Indian history where ladies have lived. The paper discusses the situation with ladies business visionaries and the issues looked by them .And likewise how much credit can be given to business for the phenomenal advancement and development of free-enterprise economies. This paper presents an outline of examination on business people and talks about the patterns in the advancement of the field. A subsequent area presents the class of Women business people in various stages and investment o f ladies as Entrepreneurs. The third area centers around the most powerful Successful Women Entrepreneurs in India; at the same time the paper gives an understanding into the difficulties looked by ladies business visionaries.

**Keywords:** Entrepreneurship Growth, Women entrepreneurs, Key to Success, problems, challenges.

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**MARKETING STRATEGIES OF MINING AND DRILLING INDUSTRY DURING  
PANDEMIC COVID'19**

**Paper ID - MGMT095**

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**ABSTRACT**

The World is facing the disaster situation of the Century with Pandemic Corona virus. The economic position of the countries is ruined with lockdown. All the industries are facing the recession. So, to overcome this situation everyone has to follow new way methods to reduce the production cost and unique marketing techniques to boost the sales volume. This article concentrating on the problems faced by the Drilling and Mining Industry methods to be followed to handle the situation. Drilling Rigs can be massive structures housing equipment used to drill water wells, oil wells, mining excavation drilling or mineral exploration or they can be small enough to be moved manually by one person and such are called Augers. Drilling Rigs can be mobile equipment mounted on trucks, tracks or trailers, or more permanent land or marine-based structures. These are the instruments used to excavation of mines and drill water wells for various purposes.

Marketing Strategy & Marketing Mix is used to describe the combination of the fair inputs which constitute the core of a company's marketing programme. These elements are often described as FOUR P's: Product, Price, Promotion and Place. The marketer needs to study these four P's in order to draft a marketing programme to achieve its marketing goal. The Marketing strategy consists of Product, Price, Place, Promotion strategies to meet competitive environment with the aim to meet the requirement of the customers.

**KEY WORDS:** Drilling Rigs, Mining Industry, excavation, Pandemic, Marketing Strategy

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**ENHANCEMENT OF GAS TURBINE BLADES AFTER THERMAL  
COATING WITH YSZ- EXPERIMENTAL STUDY**

**Paper ID - MECH1096**

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**Abstract:**

The gas turbines work at temperatures higher than temperatures of metals melting point. Therefore, the internal cooled used compressor air to protect the blades from damage and increase operating life. In this study, microanalysis was carried out on Ytria stabilized zirconia (YSZ) coated turbine blades, and the results are compared with the uncoated blades. We have used the atmosphere plasma sprayed thermal barrier coating with a thickness of 0.25 mm to withstand the high temperature of about 2000° C. A significant conclusion of the present study is that an increase in thermal coating thickness of 0.25 mm can ensure a 50 % increase in the turbine blades' surface temperature, leading to a better thrust performance.

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**AERODYNAMIC SHAPE OPTIMIZATION OF A VERTICAL AXIS WIND  
TURBINE NACAXXXX SERIES**

**Paper ID - MECH1097**

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**Abstract:**

The purpose of this study is to introduce and demonstrate a fully automated process for optimizing the airfoil cross-section of a vertical axis wind turbine (VAWT). The objective is to maximize the torque while enforcing typical wind turbine design constraints such as tip speed ratio, solidity, and blade profile. All utilized numerical codes gave similar result of the instantaneous aerodynamic blade loads. In addition, steady-state calculations for the applied airfoils were also made using the same numerical model as for the vertical axis wind turbine (VAWT) to obtain lift and drag coefficients. The obtained values of lift and drag force coefficients, for a Reynolds number of 2.9 million, agree with the predictions of the experiment and XFOIL over a wide range of angle of attack. A maximum rotor power coefficient of 0.5 is obtained, which makes this impeller attractive from the point of view of further research. Research has shown that, if this rotor were to work with fixed blades, it is recommended to use the NACA 1418 airfoil instead of the original NACA 0018.

**Keywords:** CFD; k- $\omega$  SST; VAWT; airfoil characteristics; aerodynamic wake

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**A FRAME WORK MODEL FOR EFFICIENT JOB SCHEDULING AND HANDLING  
VARIOUS JOBS WITHOUT STARVATION  
Paper ID - MGMT1098**

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**Abstract**

Scheduling has a disadvantage, that is, when longer jobs are scheduled prior to shorter jobs, it leads to starvation. Fair scheduling shares the resources equally among all jobs. Capacity scheduling was introduced by Yahoo. It maximizes the utilization of resources and throughput in clusters. LATE scheduling policy was developed to optimize the performance of jobs and to minimize the job response time by detecting slow running processes in a cluster and launching equivalence processes as the background. Map Reduce programming model has achieved great success over the past decade. With its recognized merits such as superior scalability and strong fault tolerance, Map-Reduce has thrived as a primary processing engine adopted by leading enterprises for analyzing gigantic datasets and driving cloud services. Recently, in order for companies to pursue high quality-of-service and fulfill requests from many customers, the demand for enhancing Map-Reduce frameworks so that they can leverage the best performance from underlying systems and support multi-tenancy is growing. However, many challenges exist in optimizing contemporary Map-Reduce frameworks to deliver fast job completion, fairness among many users, high cluster utilization, as well as platform-aware adaptability. This dissertation focuses on pushing forward the evolution of contemporary Map-Reduce frameworks. We have comprehensively analyzed several major Map-Reduce systems on different platforms, identified their limitations, and explored various optimization techniques to enhance their performance. We need to achieve three things that is Map-Reduce frameworks from achieving the optimal performance. These three challenges include [1] exploiting the design of a high-performance I/O services for accelerating the intermediate data movement for Map-Reduce frameworks; [2] enhancing task management to provision ideal quality-of-service in terms of efficiency and fairness in multi-tenant Map-Reduce clusters; [3] improving the adaptability of Map-Reduce frameworks for platforms featuring high performance characteristics. To address these challenges, we have introduced an algorithm, along with a Hadoop Acceleration framework for Map-Reduce to provide a high-performance I/O layer. Built on top of these techniques, Map-Reduce can efficiently move a deluge amount of intermediate data among a large number of nodes and yield effective performance improvement than the other.

**Keywords:** Map-Reduce, Big Data, Preemptive Scheduling etc.

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29th & 30th January 2021**

**METHODS OF HIDDEN PATTERN USAGE IN CLOUD COMPUTING  
SECURITY STRATEGIES WITH K- MEANS CLUSTERING**

**Paper ID - ENGG1099**

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**Abstract:**

Cloud computing has become one of the most important technologies for reducing cost and increasing productivity by efficiently using IT resources in various companies. The cloud computing system has mainly been built for private enterprise, but public institutions, such as governments and national institutes, also plans to introduce the system in India. In recent years, due to the appealing features of cloud computing, a large amount of data has been stored in the cloud. Although cloud-based services offer many advantages, the privacy and security of sensitive data is a big concern. It is desirable to outsource sensitive data in encrypted form to mitigate the problems. Encrypted storage protects the data against illegal access, but it complicates some essential functionality, such as the search on the data. A considerable amount of searchable encryption schemes has been proposed in the literature to achieve search over encrypted data without compromising privacy. However, almost all of them handle exact query matching but not similarity matching, a crucial requirement for real-world applications. Although some sophisticated secure multi-party computation-based cryptography techniques are available for similarity tests, they are computationally intensive and do not scale for significant data sources.

**Keywords:** Data Security, Cloud Computing, Data Protection, Privacy, Risks and threats

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**SOCIAL ISOLATION AND FAMILY-TO-WORK CONFLICT DURING  
WORK-FROM-HOME IN RECENT PANDEMIC: MEDIATING ROLE  
OF EMOTIONAL INTELLIGENCE**

**Paper ID - MGMT1100**

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**Abstract**

In this study primary data had been collected using structured questionnaire. The association between dependent and independent variables with mediating role of emotional intelligence (EI) had been analyzed in this study. It is found that in traditional work environment emotional intelligence influence employee outcomes compared to work-from-home (new normalcy) environment. The implications for human resources managers dealing with employees in new normalcy had been discussed in this paper.

**Keywords:** Work-from-home, social isolation, family-work conflict, employee performance, emotional intelligence, job burnout.

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**EXPERIMENTAL STUDY ON EFFECT OF SALT HYDRANTS ON FLAX AND  
COIR FBRE DEGRADATION**

**Paper ID - ENGG1101**

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**Abstract:** Due to environmental concern the natural fibres are gaining more importance because of their eco-friendly nature. Natural fibre is abundantly available in nature, the development of natural fibre composites will lead to the replacement of existing materials in various applications. This paper presents results from an experimental study of the mechanical behaviour of coir and flax fibre reinforced acrylic composites after immersion in seawater. First, in-plane design data are presented. Then, seawater diffusion kinetics are shown, the influence of seawater on design properties is quantified and flexural fatigue performance is described. Finally, the results are compared with those for glass reinforced composites. Seawater saturated specimens show a large drop in stiffness (>50%) due to fibre plasticization, but smaller drops in strength (<30%).

**Key words:** Natural Fibre, Coir, Flax, Salt hydrants, Mechanical Properties. Degradation