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# CONFERENCE PROCEEDINGS

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International Conference on  
**Emerging Trends & Contemporary Practices**

## ICETCP – 2022

**May 19<sup>th</sup> & 20<sup>th</sup>, 2022**

Atmiya University, Rajkot, India



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# CONFERENCE PROCEEDINGS

International Conference on  
Emerging Trends & Contemporary Practices

## ICETCP – 2022

THEME

Realization of  
**SUSTAINABLE DEVELOPMENT GOALS**  
under Current Scenario



**May 19<sup>th</sup> & 20<sup>th</sup>, 2022**  
Atmiya University, Rajkot, India

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## CONFERENCE SCHEDULE

**Inauguration** | May 19, 2022, 2.00 pm – 3.00 pm (Indian Standard Time - IST)

2:00 to 2:02 pm	Opening of the Conference	
2:02 to 2:05 pm	Prayer	
2:05 to 2:08 pm	The lighting of the Lamp	
2:08 to 2:15 pm	Welcome-Address	<b>Dr. Shiv K. Tripathi</b> Vice-Chancellor, Atmiya University, India
2:15 to 2:25 pm	Presidential-Address	<b>P. P. Tyagvallabh Swamiji</b> President, Atmiya University, India
2:25 to 2:35 pm	Special Address	<b>Prof. Dr. Hiroshi Sameshima</b> President, University of Miyazaki, Japan Partnering Patron
2:35 to 2:50 pm	Keynote Address on "Universities in the Face of Climate Change and Sustainable Development."	<b>Prof. Walter Leal</b> Chair of Climate Change Management Hamburg University, Germany
2:50 to 2:57 pm	Special Address	<b>Ms. Anna LekVall</b> Counsel General of Sweden, Mumbai
2:57 to 3:00 pm	Vote of Thanks	<b>Dr. G. D. Acharya</b> Professor-Emeritus, Atmiya University, India

### Technical Sessions

Day-1 | May 19, 2022 | 3.30 pm - 5.00 pm (IST) | Parallel Tracks

#### TRACK- 1 Sustainable Wellness

3:30 - 3:35 pm	Opening Remarks	Session Coordinator	<b>Dr. Mousumi Das</b> Atmiya University, India
3:35 - 3:45 pm	Keynote Address	Speaker	<b>Dr. Lucy Turner</b> University of Plymouth, UK
3:45 - 4:55 pm	Paper Presentations and Q & A Session	Session Chair	<b>Dr. Harishkumar Madhyastha</b> University of Miyazaki, Japan
4:55 - 5:00 pm	Vote of Thanks		

### TRACK- 2 Sustainable Business

3:30 - 3:35 pm	Opening Remarks	Session Coordinator	<b>Dr. Amisha Ghelani</b> Atmiya University, India
3:35 - 3:45 pm	Keynote Address	Speaker	<b>Dr. Wolfgang Amann</b> HEC, Paris, Qatar
3:45 - 4:55 pm	Paper Presentations and Q & A Session	Session Chair	<b>Dr. Sandeep Poddar</b> Lincoln University College, Malaysia
4:55 - 5:00 pm	Vote of Thanks		

### TRACK- 3 Sustainable Technology

3:30 - 3:35 pm	Opening Remarks	Session Coordinator	<b>Dr. Vishal Vora</b> Atmiya University, India
3:35 - 3:45 pm	Keynote Address	Speaker	<b>Dr. Agata Stachowicz</b> Canadian Uni., Dubai, UAE
3:45 - 4:55 pm	Paper Presentations and Q & A Session	Session Chair	<b>Dr. Divyang D. Vyas</b> Atmiya University, India
4:55 - 5:00 pm	Vote of Thanks		

### TRACK- 4 Indigenous Knowledge System

3:30 - 3:35 pm	Opening Remarks	Session Coordinator	<b>Ms. Bhoomika Zalavadia</b> Atmiya University, India
3:35 - 3:45 pm	Keynote Address	Speaker	<b>Dr. Shailendra Singh</b> IIM Lucknow, India
3:45 - 4:55 pm	Paper Presentations and Q & A Session	Session Chair	<b>Dr. Sheetal Tank</b> Atmiya University, India
4:55 - 5:00 pm	Vote of Thanks		

Day-1 | May 19, 2022 | 5:15 – 6:45 pm (IST) | Parallel Tracks

**TRACK- 2 Sustainable Business**

5:15 - 5:20 pm	Opening Remarks	Session Coordinator	<b>Dr. Minal Bhojani</b> Atmiya University, India
5:20 - 6:40 pm	Paper Presentations and Q & A Session	Session Chair	<b>Dr. Ritika Sinha</b> Central Uni., Bengaluru, India
6:40- 6:45 pm	Vote of Thanks		

**TRACK- 3 Sustainable Technology**

5:15 - 5:20 pm	Opening Remarks	Session Coordinator	<b>Dr. Vishal Vora</b> Atmiya University, India
5:20 - 6:40 pm	Paper Presentations and Q & A Session	Session Chair	<b>Dr. Dharmesh Pandya</b> Atmiya University, India
6:40- 6:45 pm	Vote of Thanks		

**TRACK- 3 Sustainable Technology**

5:15 - 5:20 pm	Opening Remarks	Session Coordinator	<b>Mr. Darshan Jani</b> Atmiya University, India
5:20 - 6:40 pm	Paper Presentations and Q & A Session	Session Chair	<b>Dr. Stavan Patel</b> Atmiya University, India
6:40- 6:45 pm	Vote of Thanks		

Day-2 | May 20, 2022 | 3.30 pm - 5.00 pm (IST) | Parallel Tracks

**TRACK- 1 Sustainable Wellness**

3:30 - 3:35 pm	Opening Remarks		<b>Dr. H. M. Tank</b> Atmiya University, India
3:35 - 3:45 pm	Keynote Address	Speaker	<b>Dr. Pramila Thapa</b> Nepal University, Nepal
3:45 - 4:55 pm	Paper Presentations and Q & A Session	Session Chair	<b>Dr. Rohan Pandya</b> Atmiya University, India
4:55 - 5:00 pm	Vote of Thanks	Session Coordinator	<b>Dr. Viral Kariya</b> Atmiya University, India

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### TRACK- 2 Sustainable Business

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3:30 - 3:35 pm	Opening Remarks	Session Coordinator	<b>Ms. Sapana Devani</b> Atmiya University, India
3:35 - 3:45 pm	Keynote Address	Speaker	<b>Dr. Abhijeet Ghosh</b> Lincoln Uni. College, Malaysia
3:45 - 4:55 pm	Paper Presentations and Q & A Session	Session Chair	<b>Dr. Vishal Khasgiwala</b> Atmiya University, India
4:55 - 5:00 pm	Vote of Thanks		

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### TRACK- 3 Sustainable Technology

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3:30 - 3:35 pm	Opening Remarks	Session Coordinator	<b>Dr. Hemant Sonkushare</b> Atmiya University, India
3:35 - 3:45 pm	Keynote Address	Speaker	<b>Dr. Ved Vyas Dwivedi</b> Indus University, India
3:45 - 4:55 pm	Paper Presentations and Q & A Session	Session Chair	<b>Dr. Ashish Kothari</b> Atmiya University, India
4:55 - 5:00 pm	Vote of Thanks		

Day-2 | May 20, 2022 | 5:15 pm – 6:45 pm (IST) | Parallel Tracks

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### TRACK- 3 Sustainable Technology

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5:15 - 5:20 pm	Opening Remarks	Session Coordinator	<b>Dr. Hemant Sonkushare</b> Atmiya University, India
5:20 - 6:40 pm	Paper Presentations and Q & A Session	Session Chair	<b>Dr. Chirag Barasara,</b> Hemchandracharya North Gujarat Uni., India
6:40- 6:45 pm	Vote of Thanks		

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### TRACK- 3 Sustainable Technology

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5:15 - 5:20 pm	Opening Remarks	Session Coordinator	<b>Ms. Toshal Bhalodiya</b> Atmiya University, India
5:20 - 6:40 pm	Paper Presentations and Q & A Session	Session Chair	<b>Mr. Manoj Sheladiya</b> Atmiya University, India
6:40- 6:45 pm	Vote of Thanks		

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**Valediction** | May 20, 2022 | 6.15 pm – 7:20 pm (IST)

6:15 - 6:20 pm	Opening Remark	<b>Dr. Vishal Vora</b> Atmiya University, India
6:20 - 6:25 pm	Welcome-Address	<b>Dr. Ashish Kothari</b> Dy.Registrar, Atmiya University, India
6:25 - 6:35 pm	Presentation of Conference Report	<b>Dr. Divyang D. Vyas</b> Dean-Transformative Academics, Atmiya University, India
6:35 - 6:45 pm	Presidential-Address	<b>Dr. Shiv K. Tripathi</b> Vice-Chancellor, Atmiya University, India
6:45 - 6:55 pm	Special Address	<b>Prof. (Dr.) Bhola Thapa</b> Vice-Chancellor, Kathmandu University, Nepal
6:55 - 7:05 pm	Felicitation Address	<b>Dr. Sheldon M. Schuster</b> President, KGI, USA Partnering Patron
7:05 - 7:10 pm	Felicitation Address	<b>Dr. Samir K. Vaidya</b> Professor, Saurashtra University, India
7:10 - 7:15 pm	Valedictory Address	<b>Dr. Pooran Chandra Pandey</b> Member of the boards of United Nations World Food Programme, USA
7:15 - 7:20 pm	Vote of Thanks	<b>Dr. M. S. Kagthara</b> Associate Dean, School of Diploma Studies, Atmiya University, India

## Messages and Reflections



### **P. P. Tyagvallabh Swamiji**

*President, Atmiya University, India  
Chief-Patron, ICETCP 2022*

“The world has witnessed highly volatile and turbulent changes during last 2 years. Across almost all the spheres of life, the technological penetration has happened at much higher speed than anyone could have ever imagined. These changes have significantly affected the direction and speed of development plans across the world. Today, we need not only the immediate development solutions but also the mechanism to cope up with undesirable, unexpected and sudden adversities. To achieve this, continuous knowledge creation and dissemination is essential! This is heartening to see a scholarly international conference on 'Realization of Sustainable Development Goals (SDGs)' theme at Atmiya University. The sustainable development is linked to the sustainable behavior at all the levels. We must act with wisdom to save the planet, it is our responsibility towards future generations. Best wishes to all the conference participants and scholars, JAI SWAMINARAYAN!”



### **Dr. Sheela Ramchandran**

*Pro Chancellor, Atmiya University, India  
Patron, ICETCP 2022*

“Today, the global community is facing a complex development situation in which trade-off among development priorities become a major challenge at all the levels. The same applies to accomplishment of Sustainable Development Goals (SDGs). While we can see the development progress across some indicators, we also see significant improvement areas on other. This indicates the need for holistic planning and implementation of SDGs in such a way that the organizations and institutions work as part of large global system while complementing the efforts of each-other. The role of higher education is quite important in both capacity building as well as in producing research-driven solutions for SDGs. This is very encouraging to see that Atmiya University has introduced a unique 5P framework at Atmiya University, which helps the students and researchers to look at the SDG issues from the wider and unified perspective. I am sure that the deliberations in ICETCP 2022 will add greatly to the existing knowledge and solutions for SDG related issues, I wish the participants all the best!”



**Dr. Shiv K. Tripathi**

*Vice Chancellor, Atmiya University, India  
Patron, ICETCP 2022*

“Effective realization of the Sustainable Development Goals (SDGs) require continuous identification of the challenges and producing the required solutions. Both these tasks call for continuous exploration, analysis and evaluation in terms of what is feasible and what has already been accomplished. Sustainable Development, in a broader sense, is a philosophy, which requires sustainable mindset. The higher education, being a catalyst to knowledge creation, dissemination and application, has a great task to accomplish. Through teaching, training, research and outreach activities, University or Higher Education Institution (HEI) can make significant contribution to realization of SDSs. In other words, the role of higher education is not only limited to SDG 4 on 'Quality Education' but also cuts across all other SDGs. It is wonderful to be part of the ICETCP 2022, organized by Atmiya University, in association with Miyazaki University, KGI, Lincon University College and Hemchandracharya North Gujarat University. Kudos to organizing team for shaping such a wonderful academic conference, focusing on inter-disciplinary issues related to SDGs. Best wishes to ICETCP 2022 delegates, presenters and speakers!”



**Dr. Kartik D. Ladva**

*Principal,  
Shree M & N Virani Science College, India  
Member, Organizing Committee, ICETCP 2022*

“Sustainable development needs continuous improvements in our actions; and evidence-based approach in policy-making. This is very exciting to see that all the four tracks of the conference are touching both action-interventions and policy issues in an inter-disciplinary and integrated manner. The research in SDG calls for shift in approach from 'thinking in specialized silos' to 'holistic and collective solutions' I am happy to see a great number of ICETCP 2022 contributions, focusing on different dimensions of SDGs. I am sure that the collaboration starting from this conference will continue in future to produce solutions towards SDGs through collaborative knowledge advancements. Congratulations to participants and delegates!”



**Dr. Divyang D. Vyas**

*Dean Transformative Academics,  
Atmiya University, India  
Member, Organizing Committee, ICETCP 2022*

“It gives me immense pleasure to be part of organizing team of International Conference on Emerging Trends and Contemporary Practices (ICETCP) –2022 which is being organized on 19th and 20th May, 2022 on the important theme of Realization of Sustainable Development Goals (SDGs) under current scenario. The conference intends to bring together researchers, academicians and practitioners from different disciplines and across the globe to discuss and deliberate on realization of SDGs which, I believe, is possible only through high standards of collaborations at all levels. Atmiya University, has always promoted education that is experiential, integrated, inquiry-driven, learner-centred, interesting and more importantly character-building. Value based education and SDGs are some of the core values at the University. I believe that initiatives like this further boost this spirit and commitment. I would like to express my appreciations to the organizing committee and hope that all the participants will have a fruitful and beneficial experience.”

## Messages from Partnering Organization



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Message by Prof. Dr. Hiroshi Sameshima, M.D. Ph.D.  
President  
University of Miyazaki, Japan



On the occasion of the International Conference on Emerging Trends & Contemporary Practices, organized by Atmiya University, Rajkot, a partner and collaborating university with my university, it is my pleasure to address all the distinguished guest, dignitaries, key note speakers, delegates, and student members. Interdisciplinary research and interventions are gaining significance in the present scenario of the world to achieve a sustainable balance between ecological, environmental, societal, and economic progress, and development. New state of the art and innovative solutions are necessary to address the important issues that link human health with sustainable and progressive development. The organizers have planned an elaborate scientific programme encompassing a broad arena of the science and society. I am sure all of us will be benefited by its deliberations which are presented as invited talks, key note addresses, and poster presentations. Considering the burgeoning global population and its effect on environment, it is time now that, researchers and policy makers from all over the world orient their efforts to create a niche for sustained, cost effective and functional technologies in the fields of Biology, health care, pharmacy, industries, agriculture and environment. I sincerely hope that you will find this conference both enriching and enjoyable.

I believe that the two days conference would certainly create a strong and stable platform for futuristic ideas favoring sustainable society development. The platform will motivate young aspirants to collaborate with like-minded scientists to ideate and innovate cost-effective products, ignition of start-up ventures, process development, bright business models, which ultimately will help to establish a harmonious society.

My best wishes,

Hiroshi Sameshima  
May, 2022



## Messages from Partnering Organization



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Message by Prof. Dr. Murakami  
Vice-President (International Relations)  
Director, Center for International Relations  
University of Miyazaki, Japan



Science and technology are the major driving forces for the economic development and quality of social life of any country. It gives me immense pleasure and pride as Atmiya university, a partner university of our university, is organizing an International Conference on Emerging Trends & Contemporary Practices (ICETCP) on 19<sup>th</sup> and 20<sup>th</sup> of May 2022. The scope of ICETP is to have sustainable development with objective goals in human health, good business, indigenous knowledge system and sustainable technology. This conference is aimed at providing a vibrant and multi-disciplinary platform for deliberating the knowledge and innovations through science and technology with social engineering model to address the alarming environmental concerns and global challenges. I am sure this event will be a perfect dais for knowledge sharing and global networking amongst scientists, young researchers, entrepreneurs, industrialists, start-up managers, policy makers, innovators, and social mangers for sustainable development. Ambitious learners like students will ultimately benefit by the target-oriented study programme to shape up their career.

I congratulate the efforts of the governing body, organizing committee, and the entire team of the conference for the successful conduct of this event at Atmiya University.

All the best,

Keisuke Murakami  
May, 2022



## Preface

The International Conference on Emerging Trends and Contemporary Practices (ICETCP) – 2022 intended to explore pathways to address current and emerging sustainability challenges by empowering learners with new skills, values and attitudes that lead to a sustainable world.

ICETCP-2022 was centered under the very apt theme of Realization of SDGs under current scenario where the objective was to identify emerging sustainability challenges; and to explore possible solutions through exchange of ideas, dialogues and experiences. The conference was planned under four tracks namely - Sustainable Wellness; Sustainable Business; Sustainable Technology and Indigenous Knowledge System. Each track further had around 8-10 sub-tracks. Rather than focusing on specific domains, these tracks were very thoughtfully identified to attract contributions from multiple domains under each thereby promoting a platform for transdisciplinary sharing.

The conference received a total of 155 submissions. After a careful review, by a team of 28 reviewers, 116 submissions were selected and are presented here in the conference proceedings. Further, in addition to those who presented the papers, the conference was attended by 478 participants that included participants from a total of 72 academic and other organizations globally. The conference also received great inputs from globally acclaimed academicians, practitioners, leaders and policymakers. 15 international experts from more than 10 countries shared their expertise during the conference. All these made this conference international in true sense.

We hope that the proceedings will serve as an important source of reference in the context of working towards sustainable development. We would like to express our thanks to all participants and experts for their contributions to the conference.

With warm regards.

On behalf of Editorial Team  
Dr. Divyang D. Vyas

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# Track 1

# Sustainable Wellness



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Conference Theme: Realization of SDGs under current scenario

## Green Synthesis, Characterization and Cytotoxicity Studies of Genistein and Lycopene Loaded Silver Nanoparticles for the Treatment of Prostate Cancer

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### Abstract

**Purpose:** The present work is focussed on design and development of green synthesized Silver nanoparticles (AGNPs) loaded with Genistein and Lycopene for the treatment of prostate cancer. **Methods:** Here the AGNPs were prepared through a green technology by utilizing ascorbic acid as a reducing agent. Genistein along with Lycopene extracted from tomatoes and isolated by column chromatography were loaded into the prepared AGNPs. These loaded AGNPs were evaluated by DSC, SEM, % encapsulation efficiency (%EE) and in-vitro drug release studies. The anti-cancer potential of the AGNPs was tested by in-vitro cytotoxicity studies on androgen sensitive and androgen insensitive prostate cancer cell lines like LNCaP and PC-3 respectively with morphology studies. **Results:** The Genistein loaded AGNPs had 99.38% encapsulation efficiency and 76±1.7nm particle size while the Lycopene loaded AGNPs had 98.716% encapsulation efficiency and 86.30±0.6nm particle size respectively. The in-vitro drug release (%CDR) of prepared AGNPs showed a 99.12 ±1.7% and 91.14±1.8% CDR compared to 16.77 ±1.1% of pure Genistein and 26.19±2.1% of Lycopene at the end of 24 hours. The IC50 value of the prepared AGNPs was 17.87µg/ml and 16.32µg/ml in PC-3 cells while it was 16.72µg/ml and 19.81µg/ml in LNCaP cell lines respectively. A significant change in morphology of the cells after treatment with prepared AGNPs was observed after 24 hours. **Conclusion:** In conclusion, the prepared AGNPs had excellent drug encapsulation efficiency, optimum particle size, and a remarkable enhancement the in-vitro drug release. The in-vitro cytotoxicity studies also manifested a good dose dependent anti-cancer potential of the AGNPs. Hence, these AGNPs prepared by green synthesis and containing natural phytoconstituents might prove to be a sustainable and fruitful aid in the war against prostate cancer.

## Impact of Demographic Variables on Quality of Work Life in Private sector Banks

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### Abstract

Quality of Work Life is a measure of how good your work, is for you. Quality of Work Life is basically the Quality of life that an employee experiences at his work place. Unless good Quality of Work Life is provided to an employee, he cannot be motivated towards work. Quality of work life is affected by many factors. Though, the demographic variables occupies wide place which means that there are lot of changes in between the employees groups when they are divided with demographic factors This study attempted to find out the impact of gender, age, experience and income on Quality of Work Life of Private Banks employees. Data was collected from 150 private banks employees of Indore division. T-test and One way Anova were used for data analysis. Top management will get help in formulation and implementation of strategy that can enhance employees' satisfaction with their personal as well as professional lives.



## Formulation and Evaluation of Herbal Bean Mung Bath Soap

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### Abstract

The ultimate aim of this study is to formulate and evaluate the herbal bath soap using vigna radiata L (Bean mung), Azadirachta indica (Neem oil), Prunus dulcis (Almond oil), Curcuma longa (Turmeric). This herbal soap is formulated by using melt and pour method. This soap was formulated from most of all natural ingredients. The soap made was evaluated for physicochemical characters such as total fatty matter, moisture content, and pH and found to be respectively 71.2%, 10.86%, and 9.63 and for other parameters, good characteristics were observed. The soap also exhibited good cleaning effect, anti-microbial, anti- melanogenic (Skin Whitening) , skin glowing and moisturizing effect on skin.

## Correlation Study between “Structure and Commencement Temperature” of Nematogenic Mesomorphs having Azo-Ester Linkage

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### Abstract

Correlation study between ‘commencement of Nematic Transition Temperature (NTT) and their ‘structural property data set’ is carry out. Stepwise backward regression analysis method is applied to find out good correlation between ‘transition temperature data set’ and ‘physical descriptors. Physical descriptors are selected on the basis of good r<sup>2</sup>-value and P-values with their respective NTTs. Data set of randomly selected 32 compounds is used as training set to obtain “Quantitative Structure and Property Relationship (QSPR) model”. Validation of derived QSPR equation is carried out on trial series as well as on test series. Average standard deviation of 5.93 for 32 compounds of trial set, and 7.09 for 11 compounds of test series is observed; between predicted NTTs and experimentally measured NTTs. Thus, it holds well on the data set of trial series and test series with comparative good degree of accuracy. Hence, derived QSPR equation can utilize to design new similar type mesomorphs having comparative low NTTs, so that they can be use at desired temperature.

## Sustainable Development Goals: an Overview

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### Abstract

This paper covers the brief overview of all the Sustainable Development Goals designed by UN. The first section covers the introduction to what Sustainable Development Goals are and their need for being framed. Second section consists of how each goal is defined and what is its importance. Third section introduces the SDG Wedding cake which is a three-tier architecture in which all the SDGs are divided based on the units of the society and nature they are trying to protect. Section four consists of all the measures that can be taken to drive nature and society into a positive direction. Later, we conclude that how each one of us can contribute in making this planet sustainable.

## The Significance of Pure Water

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### Abstract

Up to 60% of the human grown-up body is water. As per H.H. Mitchell, Journal of Biological Chemistry 158, the mind and heart are made out of 73% water, and the lungs are around 83% water. The skin contains 64% water, muscles and kidneys are 79%, and, surprisingly, the bones are 31%. watery: All creatures and plants need water to get by, and the human body is more than three-fourths water. Living things use water to heft supplements around the body and to remove squander. Water additionally assists separate food and keeps creatures with cooling, among other vital positions. Water goes all through your body conveying supplements, oxygen, and squanders to and from your cells and organs. Water keeps your body cool as a feature of your internal heat level's management framework. Water pads your joints, and shields your tissues and organs from shock and harm. More quantitative information, the significance of unpolluted water, and how it is important in every specie's prosperity will be examined in more detail in this paper.

## Peace, Justice and Strong Institutions, Gender Equality and Quality Education in the Novels of Khaled Hosseini

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### Abstract

In the pieces of literature of Khaled Hosseini, *The Kite Runner*, and *A Thousand Splendid Suns* the theme of love and relationships, peace and justice, unfairness, and injustice is portrayed. His constant urge to spread peace all over Afghanistan is shown strongly. How his characters struggle for love and relationships, how they fight for gender inequality, how they constantly struggle for being targeted for racism and ethnicity. The intersection between political events and private lives is also shown in the novels. Religion has played a pivotal role in the novels. The characters practicing Islam are shown, and how that one religion has its influence on different types of people. Throughout his novels, racism is depicted precisely. The theme of sacrifice is majorly reflected in the two novels. The struggle by men and women in the novels and their constant urge to maintain peace and have justice is shown. One of the major themes is also sin and forgiveness. One character from each novel is constantly fighting for peace and justice. There are many instances in the novels, where after a struggle, one attains peace and justice. Peace, Justice and Strong Institutions, Gender Equality, and Quality Education are one of the major themes in the novels of Khaled Hosseini.

## Isolation and Identification of Fibrinolytic Enzyme Producing *Staphylococcus Aureus* From Dairy Farm Soil and Cow Milk in Rajkot, Gujarat

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### Abstract

Thrombotic disorders are one of the leading causes of worldwide mortality which is associated with localized thrombosis in the circulatory system. So, to overcome this problem the novel fibrinolytic enzyme was isolated from *Staphylococcus aureus* strain from the dairy farm soil and cow milk. Thirty four isolates were obtained from the six samples of milk of individual cow milk and dairy farm soil. *Staphylococcus* with beta haemolytic colonies were grown on blood agar medium which are further characterized by various biochemical assays. This study had investigated the presence of proteolytic and fibrinolytic activity of the organism and morphological, biochemical tests performed for further confirmation. Phenotypic assay tests include casein hydrolysis and plasma agar were performed to check for the production of fibrinolytic enzyme producing *Staphylococcus* spp. Therefore, this microbial fibrinolytic agent can be used for therapeutic application.

## Correlation between Chlorophyll and Yield of Tricumasetivm (Wheat) Crop, Cropped at nearby area of M/s Heidelberg Cement India Limited, Narsinagr, Damoh, Madhya Pradesh

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### Abstract

Chlorophyll is an important part of the plant cell which is responsible for the generation of food in presence of sunlight. It is playing an important role in the production of food grains in crops. A study was conducted to know the Correlation between chlorophyll and yield of Tricum asetivm (Wheat) crop cropped at nearby area of M/s HeidelbergCement India Limited (HCIL), Narsinagr, Damoh, Madhya Pradesh. Due to Pollutant released by the HCIL, Narsingarh, the Chlorophyll contents of Tricum asetivm get varied at various sampling locations, on the same manner, the food grain yield was also varied.

## A Reflection on the Health Status, Infrastructure and Sustainable Development in Indian Health Sector: Mission Health for all

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### Abstract

After the independence, the Government of India has given top priority to health issues by preparing and implementing many plans and proposals. But along with economic growth health continues to remain in the state of greatest predicament. Even the slogans 'Health for All' given by World Health Organisation (WHO), 'Millennium Development Goals and 'Universal Health Care has not translated into meaningful action for healthcare. The accessibility of healthcare as well as utilization of available healthcare facilities, especially in rural areas requires improvement. The government of India has allocated Rs. 86,200.65 crores for the health sector for the financial year 2022-23, as a 16 percent increase, against Rs 73,931 crores for the period 2021-22. The Government has prepared an action plan to eliminate Kala-Azar and Filariasis by the year 2017, Leprosy by the year 2018, and Measles by the year 2020. Elimination of tuberculosis by the year 2025 is also targeted. WHO commends India for its ground-breaking progress in recent years in reducing the maternal mortality ratio (MMR) by 77%, from 556 per 100 000 live births in 1990 to 130 per 100 000 live births in 2016. India's present MMR is below the Millennium Development Goal (MDG) target and puts the country on track to achieve the Sustainable Development Goal (SDG) target of an MMR below 70 by 2030. In this paper, an attempt has been made to conceptualize the key aspects of the public healthcare system in India. The authors in this paper would also like to attempt to review the current status of public healthcare infrastructure in India. The paper also highlights the Government initiatives for sustainable development of the healthcare sector. Further, this paper would also highlight the key linkages between public healthcare and the sustainable development of a healthy India.

## Prediction of Health Diagnosis of Adolescent Girls (Heavy Menstrual Bleeding And Hemoglobin Level).

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### Abstract

Adolescent girls are the most vulnerable group for suffering from iron deficiency anemia because of their menarche and inadequate nutrition supply. Some menstrual disorders worsen the situation even more. So this study aims to investigate the diagnosis of heavy menstrual bleeding (HMB) and Hemoglobin level in teenage age girls (16-19yrs). The randomly selected 1000 girls were screened using the questionnaire method in that 169 girls were found with heavy menstrual bleeding. A hemoglobin blood test underwent on the selected girls. Among 169 samples 76.9 percent of girls were moderately anemic, 22 percent were mildly anemic and 8 percent were severely anemic. Hence it is proved that HMB will cause the reduction of hemoglobin levels in the blood. So the adolescent girls who are having Menorrhagia every month are potentially discomforting from moderate to severe anemic. It's better to treat the condition in a premature stage to lead a good physical and mental wellbeing.

## Rapid RP-HPLC method development and validation for novel antiviral drugs in synthetic mixtures

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### Abstract

In the analysis of the pharmaceutical agents new sophisticated chromatographic methods have been utilized for the quality control purpose. In the current scenario ample amount of new drugs and newer pharmaceutical formulations are available for the treatment of diseases. Diseases like HIV, AIDs, Hepatitis, and other viral diseases requires newer drugs and their combinations. As a result of this there is a need for analyse the drugs for quality control purposes. Here the drugs dolutegravir DLT, tenofovir TNF, rilpivirine RLP, has been analysed by the RP-HPLC method in the synthetic mixture. The method is developed for analysis of these three drugs in combined synthetic mixture for rapid analysis. A common concentration range for the linearity selected was 2.5 to 7.5 µg/ml for all the these dugs in synthetic mixtures. Wavelength selected for estimation was 258nm and chromatographic coloumn used was Hypersil ODS C18 coloumn (250 mm x 4.6 mm, 5 µm id). The Retention time obtained were 2.2min for DLT, 3.4min for TNF and 4.7min for RLP. The correlation coefficient was found to be 0.999 and this method has been utilized for the analysis of drugs in synthetic mixtures and in formulation as well.



## Isolation & Characterization of Polypropylene Degrading Microorganism

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### Abstract

The plastics of numerous paperwork which includes polypropylene, polyethylene, polystyrene, polyvinylchloride are being constantly utilized in our day after day life. Plastic are non-biodegradable, strong, durable, mild weight polymers of carbon at the side of hydrogen, nitrogen, sulphur, and different natural and inorganic factors and are product of fossil fuels from non-renewable sources. Maximum plastic substances are considered as one of the fundamental supplies of environmental pollution. Accumulation of plastic waste has been currently diagnosed as one of the maximum essential environmental challenges, affecting all existence forms, herbal ecosystems, and financial system worldwide. Polypropylene is a flexible polymer which is broadly used globally and performs an essential position in lots of business applications. It's recalcitrant to degradation with the aid of using microorganisms makes it persist withinside the environment, inflicting environmental pollution. In this study, 5 different kinds of isolates had been screened for capacity to degrade polypropylene in minimum media. The bacterial isolates had been capable to develop on media infused with polypropylene as a principle carbon source.

## The India's Expedition for Sustainable Development

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### Abstract

The world is moving towards development with keep in the mind that there will be a future generation and we are as an ancestor, it is our responsibility to provide them healthy mother earth to live. India as a fast developing country has adopted the sustainability Development Goals given by United Nations with its own development goals. It is the strategy to be followed in achievement of present goal without being harmful to future generation. India is having nearly 2.4% land area and 16% population of worlds. However, Country is struggling and making continuous efforts to overcome issues rose to natural resources and environment due to over population and more focus on commercial goal achievement. In this paper we are focusing on steps taken and action plans developed by India in accordance with SDG for survival of present and betterment of future generation.

## Synthesis and Characterization of Novel Highly Functionalized Thiophene Heterocycles

*Jaysinh Jadeja*<sup>1\*</sup>; *Jayraj Jatiya*<sup>2</sup>; *Dr. Mahesh Savant*<sup>3</sup>

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### Abstract

A series of novel Ethyl 2-(2-chloroacetamido)-4-methyl-5-(arylcarbamoylethyl)thiophene-3-carboxylate derivatives have been synthesized starting from various ethyl 2-amino-5-methyl-4-(arylcarbamoylethyl)thiophene-3-carboxylate. Reaction of 3-oxo-N-arylbutanamide 1a-j with ethyl cyanoacetate and sulphur under reflux condition afforded ethyl 2-amino-5-methyl-4-(arylcarbamoylethyl)thiophene-3-carboxylate 2a-j derivatives. Further reaction of 2-amino thiophene derivatives 2a-j with chloroacetyl chloride in acetone using K<sub>2</sub>CO<sub>3</sub> as base under atmospheric condition afforded novel highly functionalized Thiophene 3a-j heterocycles with excellent yields.

## Synthesis and Characterization of Novel Highly Functionalized Indole Derivatives.

*Jaysinh Jadeja*<sup>1\*</sup>; *Jayraj Jatiya*<sup>2</sup>; *Dr. Mahesh Savant*<sup>3</sup>

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### Abstract

Series of novel (Z)-3-(3-((3-methyl-5-oxo-1,5-dihydro-4H-pyrazol-4-ylidene)methyl)-1H-indol-1-yl)-N-arylpropanamide 7a-j have been synthesized starting from various 3-(3-formyl-1H-indol-1-yl)-N-arylpropanamide 5a-j. Synthesis of various 5a-j were prepared by reacting 1H-indole-3-carbaldehyde with 3-chloro-N-arylpropanamide 2a-j and K<sub>2</sub>CO<sub>3</sub> as a base in acetone under room temperature. Further reaction of 5a-j with 5-methyl-2,4-dihydro-3H-pyrazol-3-one 6 in the presence of alcohol was yielded novel highly functionalized indole 7a-j with excellent yields.

## Probiotics Supplements as a Source of Malnutrition: a Systemic Review

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### Abstract

Micronutrient deficiencies are public health concern world wide. Evidence supports the ability of Probiotics to enhance micronutrient status, which could aid in prevention of non-communicable disease associated malnutrition. This review assessed the evidence of the efficacy of Probiotic supplementation to improve micronutrient status. The intake of certain specific probiotics in healthy subjects was associated with a positive impact on the status of certain micronutrients. Malnutrition continues to threaten the existences of millions across the world, with children being hardest hit. Inadequate access to food and infectious disease are the primary causes of childhood malnutrition, but the gut microbiota may like wise contribute. It is broadly perceived that the gut micro biota of children is influenced by diet, which, thus can impact child nutritional status. Diarrhoea, a major contributor to malnutrition, is broadly perceived by pathogenic components of the gut microbiota. Diarrhoea leads to malabsorption of certain essential nutrients and decreased energy availability resulting in weight loss, which can be prompt to malnutrition. The gut microbiota of severe acute malnourished (SAM) children shows lower relative diversity compared with healthy children. The keyword global malnutrition, will be connected to the use of probiotics as a preventive method to reduce vulnerability in children and frailty in elder. The risk of malnutrition combined with the frailty syndrome, with a history of a poor microbiota during childhood, can make it difficult for the patient to recover and can even lead to death. Conversely the administration of probiotics can make the intervention timelier and avoid severe complications, even with a fatal outcome.

## Bacterial Isolation and Identification from *Litopenaeus vannamei* Diseases Bhal Aquaculture Bhavnagar, Gujarat

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### Abstract

This research focused on India's shrimp culturing system, which is no less essential than shrimp culturing in other nations. India ranks second in aquaculture farming, however there has been a significant fall in shrimp production from 2019-21. Andhra Pradesh is India's top shrimp-producing state. The shrimp causes various illnesses, which prevents production from reaching its height in India. Climate, location, land, water parameters, correct feed, probiotics, and environmental characteristics are just a few of the aspects that shrimp growers must consider. Furthermore, illness outbreaks are a serious impediment. *Litopenaeus vannamei*, a white shrimp farmed in the Bhal area near Bhavnagar, was heavily affected with blackish spot infections despite the use of probiotics and strict adherence to environmental criteria that promote shrimp growth. In this investigation, samples were collected, and white shrimp from infected and healthy shrimps were isolated and compared. After homological, phylogenetic, and morphological analysis, the organism identified from diseased shrimp was *Acinetobacter indicus* CIP 110367 strain A648 and *Bacillus subtilis* strain NCDO 1769 from healthy shrimp gut flora.

## Phytochemical Rich Polyherbal Preparation and Preliminary Characterization for Studying its Biotherapeutic Effect

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### Abstract

In the translational therapeutics' scenario, the domain of wound healing consists with amalgamation of major branches of Allopathy, Ayurveda, Homeopathy and their synergistic approach. Allopathic medicines have varied breakthroughs yet had their side effects. So, the researchers and surgeons had to opt for different approach that promises a brilliant blend of trans-medicines. Ayurveda focuses on root cause and tries to uproot the same, but takes a very long time and requires tedious dressings. While keeping the therapeutic aspect in mind, the medicines of Allopathy and Ayurveda should take one another's merits and come together for better and complete healing. Hereby the research undertaken focuses upon impaired wound healing of Diabetics, categorized under non-healing chronic wounds with cost effective approaches. Major impact remains organ amputation that has been gradually becoming a leading factor for the deleterious effects on the individual's quality of life and psychological comfort. The recent technologies are amended to minutely analyze the cause of delay in wound healing, that is quite a complex and multi-variant dependent. Recent study focuses on preparation of polyherbal formulation and evaluation of the phytochemicals present in the herbs that might work synergistically. The preliminary analysis was performed using qualitative and qualitative estimation using aqueous plant extract from *Securinega leucopyrus* (Katupila), *Azadiracta indica* (Limbo), *Senegalia catechu* (Khadir) and *Vitex negundo* (Nirgundi). The qualitative analysis findings depicted the presence of alkaloids, flavonoids, saponin, tannin, steroid, amino acid, phenol, terpenoids. Quantitative analysis via Soxhlet extraction showed significant presence of these bioactive compounds. Certain characterization of polyherbal formulation was performed for their biological properties viz. anti-oxidant and anti-biofilm formation with isolated micro-organisms from the wounds of diabetic patients.

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# Track 2

# Sustainable Business





## Preferences of Gen Z for Investing in Socially Accountable Funds

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### Abstract

Socially accountable fund (SAF) in India continues to be a fresh investment approach for its investors and socially accounted business. It is a funding that considers social justice, environmental sustainability, in addition to the incorporation of moral materials of enterprise and trade. This paper tries to determine factors influencing 'Generation Z's' (Gen-Z) preference to invest in socially accountable funds. The "Theory of Planned behaviour (TPB)" (TPB) focuses on symbolize attitude, subjective norms, and perceived behavioural management by the investors. These factors are included to take a look at how those variables sequentially affect the adoption of socially accountable funding. More importantly, socially accountable consumption, in addition to perceived ethical duty also are protected making use of growing a prolonged idea of deliberate conduct studies framework. The statistics become amassed thru a survey, using a self-administered questionnaire the usage of a '6-factor Likert Scale' amid 287 respondents in Gujarat. All the hypothesis are supported by the findings, besides for the connection among subjective norms and the adoption of socially accountable funding (SAF). The findings offer beneficial facts to the vendors of funding merchandise and services, in particular in increasing their marketplace in the direction of selling socially accountable funding, especially amongst Gen-Z.

## Is Metal Price a Mirror of Rally due to Crude Price for Last Five Years? : a Comparative Study between NSE METAL Index-NIFTYMET and Crude Oil Price Spot Price in Indian Rupee as per MCX.

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### Abstract

This paper is study of effect of crude oil prices on the prices of NSE Metal index- NIFTYMET. It looks at various aspects of the NSE Metal index- NIFTYMET for comparison with crude oil price spot price in Indian rupee as per MCX. In recent years the increasing importance of the future market in the Indian markets has received considerable attention from researchers, academicians and financial analysis apart from investors at large. To evaluate the performance of NSE Metal index- NIFTYMET with respect comparison with crude oil price spot price, the present study is undertaken with an attempt to determine the movements and its volatility of the NIFTYMET, 15 companies comprise NIFTYMET dealing with the base metal sector. The period of the study for five years selected between March 2017 and March 2021. for examining the Index price movements and its volatility, researcher took comparison using statistical tools such as correlations and paired two tailed test-t-test and also examine the trend analysis of the five years profit figures with diagram for all the fifteen companies in the NSE Metal index- NIFTYMET. The researcher concludes that it would be volatility due to other factors also apart from movement in crude oil price as it is evident and supportive in significant rally. The research also suggests introduction of some new research with different factors for correlations and cause effect relationships for upward volatility movement in Metal index prices at NSE NIFTYMET exchange and it is also evident that would make the hedging process more informed and easy and also would help some retail investors express their view in a better fashion without the transaction costs involved in these metal as structured products.

## **Green Marketing: an Analysis of how Consumers Create Sustainable Company Context**

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### **Abstract**

From an organizational standpoint, environmental considerations should be integrated into all aspects of marketing — new product development and communications and all points in between. The holistic nature of Green also suggests that besides suppliers and retailers new stakeholders be enlisted, including educators, members of the community, regulators, and NGOs. Environmental issues should be balanced with primary “Customer Needs”. We are aiming to keep customers in the centre of our research to understand the impact of their behavior on the way companies use green marketing ways of doing business. We are considering the Demographical factors like; Age, Gender, Education. Behavioral factors like; Environmental awareness, Eco label, Men nature orientation.

## **Green Entrepreneurial Intention: a Cornerstone for Building a Green Economy**

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### **Abstract**

The Cognizant efforts must be made to make the economy resilient by considering the Sustainable Development Goals (SDGs) which will foster the green economy. Green entrepreneurship is crowned as the greatest promoter of SDGs. As today’s generation is tomorrow’s entrepreneurs, nurturing their green entrepreneurial intentions will contribute to the sustainable development of the nation which will be the pioneer factor for building the green economy. The concept of Green Entrepreneurship is playing a crucial role in ecological development and environmental protection; as it creates a bridge between social, economical and environmental pillars of sustainability. Based on the existing literature, this study aims to build up a conceptual model for green entrepreneurial intentions to serve future researchers in investigating specific respondents. This paper specifically explores the role of different parameters like green entrepreneurial intention, educational support, green opportunity identification etc. by considering mainly three dimensions: Individual, Behaviourial and Institutional dimensions from the review of related literature. Moreover, the objective behind this study is to make the platform of work available that can be utilized to do meaningful comparisons within the nation as per the demographic variations. It will provide directions to planners, policy-makers and educators in framing the green entrepreneurial culture. In fact, this study will be helpful to do further research for measuring the attitude, activities and aspirations for green entrepreneurial intention.

## Analyzing the Impact of Demographic Variables of Consumer on Brand Preference Towards FMCG Companies Performing CSR Activity

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### Abstract

CSR (Corporate Social Responsibility) establishes a foothold in the minds of target customers. Companies are utilizing various strategies to boost the value of intangible assets as a result of increased global rivalry, increased media clutter, and less differentiation in brand. CSR not only raises consumer awareness of a brand, but it also develops a favorable brand image in the minds of future customers. The goal of this paper is to gain a better understanding of the CSR activities undertaken by Indian FMCG companies in order to develop brand value in the market, as well as to examine the relationship between demographic characteristics of consumers, such as gender, age, education, occupation, and income, and brand preference developed through CSR activities. The results showcase that CSR is a crucial activity performed by the firm and it surely creates an impact on consumer's mind. CSR can create or improve company's brand equity in the market which could be results in to purchase preferences by the consumers. Some of the demographic characteristics like Income, Occupation and Education do have relation with the brand preference and company's CSR activities, while other factors like gender and age do not have any relation with the brand preference through CSR by consumers.

## Mobile Wallet and its Prospect in Gujarat

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### Abstract

In today's smartphone world, smartphones play an important role in people's daily lives. Technological advances are likely for devices such as smartphones, as mobile phone users will be able to transfer money or make payments using mobile applications. This study aims to explain the concept of a mobile wallet, the types and benefits of a mobile wallet and the use of a wallet approved by different companies, as well as various factors influencing consumer wallet choices and the different risks and challenges faced by mobile wallet users. An orderly questionnaire was compiled and data from 200 respondents were collected.

## Impact of Fintech on the Effectiveness of Private Sector and Public Sector Banks in India

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### Abstract

Technology & Innovation have funneled a far-reaching alteration in traditional financial services in all over the world. Now days, technology seem like a crucial key for the development of digital economy. From the many years banks in India and different financial service providers have carefully implemented technology to enlarge reach to the clientele, deliver services to and operative competence with developing market and technological improvements. But still, the motivation of technology implementation is not alike to its potential. Therefore, there are different breaks in the understanding of financial services. Financial Institutions and Traditional Banks have observed technology as a possible to allow the business proposals, rather than inventing new business proposals by its own. Financial Technology (Fintech) Companies however are adapting that role by acceptable digital technologies to create new business propositions and aim new market segments which presciently were impossible. Though, RBI is allowing the growth of Fintech sector to increase the spread of banking services for unbanked population. Fintech is the authentic vision in the application of technology to suggest new financial products and services to different market segments in an economically possible way. As of a business model viewpoint, the Fintech sector is noticeable by technological companies that either attempt to modernization, or companion with Banks and Financial Institutions disclose in strategic accounts and market landscape. Hence, Fintech is gradually becoming a foremost center of attraction for all the key stakeholders in India's Financial Services Industry's Regulators, Payment Banks, Traditional Banks, Payment Service Providers, NBFCs, Investors, Insurance providers, Broking and Wealth Management Companies and pure play Fintech players. So, the inspiration of this paper is to discuss about various surfaces of Fintech in India.

## Corporate Expansion Strategy Merger and Acquisition: an effect of Pandemic Covid 19

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### Abstract

This paper present the study of an effect of COVID-19 pandemic on highly expected and widely used corporate strategy called Merger and Acquisition. Pandemic situation made huge impact on business as well as personal life of the people. However life is all about moving on and we can't wait for things to be normal because this pandemic established new thinking 'Be Ready – Accept – Never Normal' of our life. The transaction value and number of deals were reduced though merger and acquisition is savior strategy to which it hit adversely in order to survive in competitive pressure. Researcher attempted to study effect and its way out in order to get stabilize in performance of the business.

## Women Entrepreneurship Development in India During 21st Century

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### Abstract

Women Entrepreneur improves family income and also contribute to the wealth of the nation. Today, Women keenly takes up the activities that were once reserved for men, and proved themselves with regards to the contribution towards economic prosperity. Entrepreneurs are playing significant role for economic development with respect to underdeveloped and also fast-developing nation like India. Women's knowledge, skills, abilities, talents in business with compelling desire to do something fruitful are the few reasons why organisations need women entrepreneurs. As per the World Bank, investing more in business set up by women rather than in men leads to better development of the nation. Empowering women leads to equality and also helps in reducing poverty. Today, it has been realized that women entrepreneurship has cast entrepreneurial talents which might be harnessed so as to convert them from the position of Jobseekers to Job providers. Even Government has realized the importance of entrepreneurship in women. So, they started offering variety of programmes for them. Even after that, women are not ready to start their own venture. As compared to men, females are less motivated to start their own venture due to some unwanted fears and also lack of motivation.

## Study on Sustainability Report through Various Environmental Indicators of Selected Indian Private Companies

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### Abstract

Sustainability reporting is an important tool to evaluate the company's achievement towards corporate sustainability. There are many indicators available for study about Sustainability reporting, but in this study it clearly talks about environmental indicators that can be helpful. Sustainability reporting is also good governance practices and the practices followed by many companies now a days in an effective manner. Sustainability reporting in which need to focus on the parameter of environment, society and government level also. Many companies are doing corporate social responsibility but through Sustainability reporting we are getting clear picture of the various specific area wise clarification. In the present situation also it is requirement to disclose about corporate sustainability. So this research paper try to attempt throw some lights on Sustainability reporting with specific reference to environmental indicators of selected Indian private companies. In this era business organizations have understood the importance of the sustainable development and each business organization is taking effort to contribute sustainable development. Thus, this research is carried out with support of 5 Indian Companies about their pattern of reporting under GRI (Global Reporting Initiative). The results are compared and concluded by using simple presentation of data, percentage analysis) and other supportive tools to derive and conclude the results.



## **Study on Impact of Profitability on Performance of CSR in Selected Public Sector Units of India.**

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### **Abstract**

Since the business life of any nation closely concerns & increasingly determines the happiness & welfare of its people & in addition to that making fair & adequate returns on capital, every enterprise has manifold responsibilities viz, to itself, to its customers, workers, shareholders & community & it is the task of management to reconcile these separate & sometimes conflicting responsibilities. How it is to be done, depends upon the circumstances, which must be examined as fully & impartial as possible before one can say what particular solution will best ensure that business does in fact accept & discharge these responsibilities by business. The CSR (Corporate Social Responsibility) concept has not remain the moral responsibilities but has become an integral part of any business to sustain in this cut throat competition and of course, even companies enjoy several benefits like improved financial performance, lower operation costs, enhanced brand image and reputation, increased sales and customer loyalty, product safety, material recyclability and greater use of renewable resources etc. During the pandemic period of Corona, the corporations of the whole world truly realized that it is the market on which we are dependent, if that market survives then and then only the corporations can find the way of their survival. Business of Business is Business' was the motto of businesspersons in early times. So, if a business has to earn to survive today the concept of CSR has become inevitable for it. In this research paper the comparative study of selected PSUs indicate that how different parameters of business do affect the implementation of CSR of the particular business. Although, there are various advantages to perform the CSR and of course the scope of CSR is large too!!

## **A Study of Impact of Financial Performance on Social Responsibility in Selected PSU's of India.**

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### **Abstract**

As the business life of any country is closely concerned with the society and it is increasingly determines the welfare and happiness of the people of the nation. In addition to this, the adequate and proper returns on capital, every business had many types of responsibilities i.e. to itself, its employees, customers, suppliers, shareholders and the whole society at large. How it is to be done, depends upon the circumstances, which must be examined as fully & impartial as possible before one can say what particular solution will best ensure that business does in fact accept & discharge these responsibilities by business. The CSR (Corporate Social Responsibility) concept has not remain the moral responsibilities but has become an integral part of any business to sustain in this cut throat competition and of course, even companies enjoy several benefits like improved financial performance, lower operation costs, enhanced brand image and reputation, increased sales and customer loyalty, product safety, material recyclability and greater use of renewable resources etc. Those businesses which previously were not that much serious about performance of CSR before Corona pandemic, are now that much concerned about that because now they have realized the importance of taking care of society. In India, as in the rest of the world there is a growing awareness that capital markets and corporations are, after all, created by society and must therefore serve it, not merely profit from it. If this concept has to be developed then the entrepreneurs have to change their attitude towards business of earning profit only. The main drivers of CSR have been the shrinking role of government, demands for greater disclosure, increased customer interest, grown investor pressure, competitive labor markets and supplier's relations. „The main Business of Business is to Business' was the motto of businesspersons in early times. In this research paper the impact of financial performance of selected PSUs of India is tested on the amount of social responsibility they perform.

## **A Study on Impact of Green Marketing on Brand Image of Company and Buying Decision of Consumer**

***Tushiti P. Bakrania \****

Assistant Professor & Research Scholar , Faculty of Business and Commerce, Atmiya University, Rajkot, Gujarat, India;

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### **Abstract**

Green marketing is one of the wider topic which is been used by many researchers for there research. This study is based on various companies adopting green marketing which will impact there brand image. This study also gives idea about ECG and its importance in corporate. The research gives idea about the companies which come under top ten companies for going in eco friendly sector and how they have gained the markets attention. United Nation has given many principles which are adopted globally for corporate sustainability is also part of this research.

## The Role of E-Commerce Industry in Selling Life Insurance Policies in India for Sustainable Business Development

*Bhakti Raval*<sup>1\*</sup>; *Dr. Alpa Joshi*<sup>2</sup>

<sup>1</sup> Research Scholar, Faculty of Business and Commerce, Atmiya University, Rajkot, ujarat, India.;

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### Abstract

Where the other sectors within the economical industries are rapidly embraced the online facilities to gather the sustainable advantages, insurance policy providers are quite slow in this race to adopt the e-commerce. This paper examines the limitations and also the factors regarding the success in transferring the offline model of insurance into online. The technologies and the standards that are playing and will get involved in transferring the insurance and ecommerce incorporation are briefly discussed in this article.

## Green Economy in the Context of India

*Dr. Alpa Joshi*<sup>1\*</sup>; *Isha Vyas*<sup>2</sup>

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### Abstract

At both the national and global levels, the transition to green and inclusive economies has been long debated. India has lately accepted two big global commitments: the 2030 Agenda for Sustainable Development and the Sustainable Development Goals. The Paris Agreement's ratification and the Global Development Agenda. The goal of this paper was to investigate the advantages, concepts and challenges of the green economy. The shift to a green economy is critical. Agriculture, construction, power, manufacturing, transportation, and tourism are all growing industries.

## Green Finance: arise a Future Scope of Development in India

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<sup>1</sup> Research Scholar, Faculty of Business and Commerce, Atmiya University, Rajkot, ujarat, India.;

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### Abstract

In this development era worldwide economy is facing 3 major challenges environmental alternate vitality limitation cash associated emergency a number of studies have been conducted on the relation between green finance and environmental performance. Green finance helps to decrease ozone level and air pollution depleting substance discharge and air contamination emanation altogether. Green finance is solution for surface completing compilation between economy & nature in this paper aim to explore green finance awareness and future scope of green finance in India spreading awareness about green financing in Indian people

## A Transformative Corporate Expansion Strategy: M&A With ESG (A Pathway Created by Deloitte)

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### Abstract

The changing swift of business environment with sustainability development increases demand for transforming core business strategies and private equity funds within the purview of ESG. Billions of dollars investment need to swift considering ESG along with consumer awareness, Industry requirements, Regulatory framework, and employees and stakeholder's expectation. M&A strategies are rapidly undergone a change having lasting impact. However, after COVID pandemic stakeholders are showing concern for the environment too.

## **Investors' Awareness Towards Investing in E-Gold as an Investment Avenue: a Study of Rajkot City WithReference to Sdg-9**

***Mehul D. Chhaniyala\****

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### **Abstract**

Investment is defined as an asset or element that is bought with the hope that it will create income or will rise in the future. Investment is the employment of reserves with the object of getting return on it. In a financial sense, an investment is the acquisition of goods that are not consumed today but are used in the future to generate wealth. Hence each and every investor needs maximum return from their investment avenue. In this research paper researcher has analyzed on E-Gold as an investment avenue. E-gold is the new investment alternative. E-gold mentions to electronic mode of holding gold and is fundamentally a financial instrument traded in spot exchange in India. The national spot exchange restricted has presented e-series product in commodities to start with, they have introduced E-gold. This research paper focus on the behavioral pattern of awareness about E-Gold viz. Demographical factors like age, gender, and monthly incomes & monthly saving, saving percentage, awareness about E-Gold of investors. Through the study it has found that the attitude of investors toward E-Gold is law other than Physical Gold.

## **Factors Driving Consumer Preferences for E-Vehicles**

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### **Abstract**

The primary purpose of this study is to analyze the consumer Motivation towards Buying and Using of electric vehicles in India. As India is facing environmental problems, the government is producing positive policies to stimulate the sales of electric vehicles through which the country can meet the United Nations' climate goals of reducing greenhouse gas emissions. In addition, India is one of the largest vehicle markets in the world, and the electric vehicles market has promising growth potential. This study adopts a quantitative approach and survey method to explore the various factors affecting consumers' willingness to purchase electric vehicles and the level of consumer motivation about electric vehicles in India. It has been found that environmental concern, value for money, supporting infrastructure and driving range are the most prominent factors with different degree of concern motivates people for E-vehicle preferences. Hence this research offers insight to EV manufacturers and the government about the expectations of the consumers for Electric vehicles driving their future preferences in India.



## Investments in ESG Funds as a Better Investment for Environment: a Study of Selected ESG Funds of India

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<sup>1</sup>. Assistant Professor, Faculty of Business and Commerce, Atmiya University, Rajkot, Gujarat, India ;

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### Abstract

ESG mutual funds have gained popularity from last few years. These mutual funds are based on the companies which follow favourable practices towards Environment, society and governance. The researchers have selected four ESG mutual funds and compared its performance internally as well as with sensx as a benchmark index for monthly data from year 2021 to 2022. The outcomes show that selected mutual funds are at par with generating returns and also replicating sensx to some extent.

## Corporate Governance & FII: Evidence from Indian IT Firms

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### Abstract

Capital is required by every country for its growth and development. FII is one of the sources for arranging capital for growing firms. There are many factors which influencing in the investment of country like government policies, country growth, Transparent economy etc. which gives a scope for Foreign Institutional Investor to invest capital. Corporate governance is one of the factors which will decide the inflow of capital by FII in corporate. This study is to find out the impact of corporate governance factors impact on FII investment in Indian IT industry(2011-20). We had collected 27 listed IT firms' data from the respective company websites (in order to get the annual reports) and S&P Capital IQ database.

## A Research Study on Social Media's Acceptance as a Tool of Modern Marketing Among Consumers of Various Age Groups

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### Abstract

The trend of using social media is booming, only young and literate consumers are using social media is an old thinking now. Now a days we will find a ll age group's people in social media. People are using some or a ll of the popular sites like Facebook, Whats app, You Tube etc. Regularly, for various purposes like for Entertainment, for getting information, for making new friends and developing relations with them and for many other purposes. This study analyses the level of acceptance of social media ma rket ing fro m consumer's point of vie w. For that the responses of 150 people of different age groups were taken from Rajkot city who use social media. For testing hypothesis ANOVA statistical test is used. In conclusion it is found that majorly teenagers and young stars favors the social media marketing and consider it as an appropriate tool for getting information regarding any product or services, while the people belong to post adult age group still prefer traditional medium of marketing

## Consumer Perception Towards Green Products

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### Abstract

Environmental concerns have made consumers, marketers, researchers and policy makers eager to choose different green methods and strategies to alleviate environmental concerns. There, the goal of this study is to explore the impact of different strategies used by green marketers that modulate their purchasing choices based on consumer perceptions about green products. Therefore, this research was conducted on consumers who have purchased a green product at least once in their lifetime. Data were collected from a sample of 118 consumers and the statistical results indicate a strong correlation between marketing strategies, production factors, consumer ecological values.

## Are Families Happily Accepting Entrepreneurs? a Study on Women Entrepreneurs of Rajkot City

*Jigna Trivedi*<sup>1</sup>; *Dr. Piyush Mehta*<sup>2\*</sup>

<sup>1</sup> Research Scholar, Department of Commerce, Atmiya University, Rajkot;

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### Abstract

Entrepreneurship is a back bone of Nation's development. Entrepreneur is a key factor of entrepreneurship. In present time women are an emerging economic force. Women constitute the family, which leads to society and family. Social and economic development of women is necessary for development of any country. Entrepreneurial activity relating to women entrepreneurs in MSME has been the interest of many researchers, as they have become the main contributors to today's economy. [9] However, not much is known about what motivates and hinders, what are the success factors of Women Entrepreneurs in their entrepreneurial journey. The percentage of women entrepreneurship is significantly low compared to male entrepreneurs, even after comprising almost half of the total population. Contribution of women Entrepreneurs is highest in Tiny and Micro Enterprises but considerably lower in Small and Medium Enterprises.[3] In Rajkot City there is need to identify Various Motivating factors, Challenging Factors and Prospective factors which leads to women to achieve their entrepreneurial dream. This paper aims to throwing light on challenges of women by their interview. Research Design in this study focused on Data collected through primary sources.

## Emotional Labor in Customer Service Professionals: Validation in the Indian Context

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### Abstract

Rationale: Modulating of Emotional Reactions to suit the work requirements is a common phenomenon in the customer service work. The concept has been termed as Emotional Labor by Hochschild (1983). The construct has evolved through the years, and many versions have been proposed (Bono & Vey, 2005). Different approaches to the concept have been generated by various researchers (Asforth&Humpherey, 1993; Grandey, 2000; Morris & Feldman, 1996) which differ from each other in multiple aspects. Therefore, validating the Emotional Labor measurement scales proposed earlier is essential to check their suitability in the Indian Context. The purpose of this study was to investigate the adequacy of the original factor model of the Emotional Labor Scale (ELS) proposed by Brotheridge and Lee (2003), which assesses the frequency of emotional display, intensity of emotional display, variety of emotional display, surface acting and deep acting as major contributors leading to Emotional Labor at workplace. The study was conducted on 600 customer service professionals who were Doctors, Teachers, Marketing Professionals and Hospitality Executives working at Indore, M.P. A questionnaire comprising basic Demographic Information and ELS was exercised on the sample. Data collected was then subjected to Reliability Test and Confirmatory Factor Analysis to explore whether the resulting structure was valid for the data collected from Indian Customer Service Professionals. Cronbach's Alpha value for ELS was found to be 0.89. The values from the Confirmatory Factor Analysis on Emotional labor Scale revealed that the model was acceptable as all the critical values (CMIN, CFI, AGFI, RMSEA) fall within the acceptable ranges and was finalized to be included in the final model. Out of the fourteen items, all items were statistically significant with high factor loadings (>0.50) and therefore item discrimination was found acceptable for each item. The results regarding reliability and CFA Model fit were found to be satisfactory. Thus, the instrument is suitable for the assessment of emotional labor even in the Indian Context specifically with reference to the customer service sector.

## Impact of Rewards on Employee Performance in Banking Sector

*Virali K. Khandhar*<sup>1</sup>; *Dr. Meghashree A. Dadhich*<sup>2\*</sup>

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### Abstract

There are mainly two elements in this research that is reward & employee performance. Researcher here wants to find out relationship between both. Human resource has become key resource for all organization all over the world to do business. It will be the employees who will be engaged in various services & also will be in touch with various customers. Employee motivation is the key factor for organizational productivity. Among various factors that influence employee performance, reward system of organization is important of them. Researcher here have taken some important financial reward & non-financial rewards to analyze its impact on employee performance in banking sector. Primary data was collected by conducting interview of different personalities of different banks by using some questions. The respondent's responses showed that rewards have high impact on employee performance in banking sector. Financial reward will help in improving life style of person & non-financial rewards will enhance skill & confidence of employee.

## An Investigation on Microfinance and Sustainable Development in Developing Countries.

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### Abstract

The wave of the global financial crisis (2008-2009) has caused an increase in capital flow between developed and developing countries, especially in developed countries. Between 2019 and 2020, the Covid-19 pandemic and the accompanying global recession increased the number of people in extreme poverty by an estimated 50 million. Tier 2 and Tier 3 countries need more assistance with regards to development of microfinance. Response to such crisis situation should be decentralized with coordinated and regional approach. Semi-equity products and mixed financial solutions are well suited to address pandemic challenges. Sustainable Development is a multifaceted concept that embraces social and economic prosperity without violating planetary boundaries. Therefore, current socio-economic development is linked to efforts for the well-being of future generations. Microfinance systems provide financial services to people around the world, especially in emerging economies, who have limited access to traditional financial markets or are at risk of financial exclusion. The industry is characterized by a focus on cheap products and services with easily accessible financial products, a simple opening process and a regulated return guarantee. This study focuses on identifying sources of microfinance and aspects that support sustainable development in developing countries like SAARC.

## **Delineating the emerging trends in the study of equity options and index options using bibliometric analysis**

*Tejinder Singh*<sup>1\*</sup>; *Dr.Rubeena Bajwa*<sup>2</sup>

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### **Abstract**

In this comprehensive study, the focus is on the evolution of index options and stock options as modern financial instruments and analysing the emerging contemporary themes in options with special focus on open interest. This study reviews 759 research studies published between 1982 to 2021. The study has used a bibliometric and network analysis tool to identify the most cited studies, leading journals and authors. The thematic structure of research on open interest from 1982 to 2021 has been inferred using the co-citation and bibliometric-coupling analyses in this review paper. With the help of Scopus database, the results have been summarized covering the broad topics of Volatility, options and option prices, stochastic models, financial markets and stock markets, hedging, granger causality, price determination, model test, information asymmetry, equity and VIX index.



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**Track 3**

# **Sustainable Technology**



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Conference Theme: Realization of SDGs under current scenario

## Technology Adoption and Usage by the Public during the Covid-19 Pandemic

*Ram Mishra*<sup>1\*</sup>; *Monica Sainy*<sup>2</sup>

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<sup>2</sup> Associate Professor, Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore;

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### Abstract:

This research paper determines the most adopted and used technology by common public and end-consumers during the Covid-19 Pandemic and try to determine the technologies that will continue to see increased adoption rate beyond the Covid-19 Pandemic. This research paper examines examples of how digital technologies and services have been employed in daily lives of individuals and enterprises/businesses during the COVID-19 crisis. We have used responses to the survey built using google forms, as the method for data collection. The study undertaken was exploratory in nature to identify the most adopted and used technology among common public during the Covid-19 Pandemic. We used descriptive statistics, R-test, R-Squared test, and ANOVA for the study. The results show that Video Based Collaboration Technology related services had the highest adoption and usage amongst respondents, followed by Process Automation, Mobile/Web-based services and Microservices, and Artificial Intelligence (AI) and Analytics. As an implication of the study, businesses can focus upon technologies such as Video Based Collaboration Technology, Process Automation, Mobile/Web-based services and Microservices, and Artificial Intelligence (AI) and Analytics – in that order, to roll-out new services and models while dealing with their end-customers and prospects, during and beyond the Covid-19 Pandemic.

## Early Recognition of Mung Leaf Diseases Based on Support Vector Machine and Convolutional Neural Networks in Uncontrolled Environment

*Akruti Naik*<sup>1</sup>; *Dr. Hetal Thaker*<sup>2\*</sup>

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### Abstract:

India is a densely populated country. The future of food security in India hinges on safeguarding that the yield of hardworking farmers does not go to waste. Hence, food quantity and quality turn out to be very essential, which can be ruined due to the attacks of numerous diseases. Automatic disease detection can help farmers to recognise the disease at early stage and take timely actions against them. Automatic disease detection elevated major problems that is disease detection and disease classification. Numerous researchers have worked on crop disease detection and projected numerous methods to increase the performance of crop disease detection. Here, Support Vector Machine (SVM) and Custom Convolutional Neural Network (CNN) has been proposed that automatic recognise Mung leaf diseases of South Gujarat Region of India. After applying SVM and Custom CNN it is observed that Custom CNN outperforms by disclosing test accuracy of 87.88% and train accuracy of 99.69%.

## A Review for Recommender System Based on Filtering Method using Artificial Intelligence

*Nirav Mehta*<sup>1</sup>; *Dr. Hetal Thaker*<sup>2\*</sup>

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### Abstract:

Nowadays, Artificial Intelligence is one of the trending aspects of this current world so on the base of that author observed that with the use of AI we can improve the health & able to give the suggestions for taking the healthy food to the users. Nutrition-based food is so essential for humans to maintain their good health. There is much research work that has taken place in India to resolve the problem using AI. Considering this as a serious problem author try to identify certain major diseases that do have a role to play in having good health. Diabetes and cardiovascular activity were used as a starting point for author's evaluation. Author also investigated another aspect of nutrition-based recipes using a health recommendation system. There are many AI based Recommendation System available for the user. To provide this type of system researcher must have to use the filtering methods of the AI so for that author, try to understand the filtering methods of machine learning and the model working based on different types of filtering methods like Content Base Filtering (CF), Collaborative Filtering (CBF), Hybrid Filtering (HF), and Demographic Filtering (DF), which will help such people to find the right recommendation for nutrition base recipes for the good health. The purpose of this paper is to delve into a major research area by recommending recipes for nutrition-based foods to the people. According to the survey of these papers, author believes that further research can yield more effective results using AI for the people of world.

## A Systematic Review on Road Network Extraction System from Remote Sensing Images by Convolution Neural Network

*Miral J. Patel*<sup>1\*</sup>; *Dr. Ashish Kothari*<sup>2</sup>

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### Abstract:

Remote sensing (RS) images play a very important role in our daily life and are used in various applications such as geography, forestry, water conservancy, natural disaster, land map planning and many more. Feature extraction from such as Road feature is challenging task due to obtain road information from complex backgrounds which is present in remote sensing images. Automatic Road extraction systems are useful in urban planning, traffic management, map updating, road monitoring and others. With the advances in remote sensing technology make possible to obtained high resolution remote sensing images easily which make possible to detect road easily from remote sensing images. In this paper we reviewed different methods used for detection of road network based on deep learning and its comparison with respect to correctness, completeness and quality of images.

## Self-Nano Emulsifying Drug Delivery System: a Potential Solution to the Challenges of Oral Delivery of Poorly Water-Soluble Drugs

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### Abstract:

One-third of newly discovered pharmaceutical compounds have low water solubility resulting in limited oral bioavailability. The oral administration of hydrophobic medicines provides a considerable problem due to their poor water solubility. Many lipid-based formulations have been studied in recent decades to improve the oral administration of such drugs. Self-micro emulsifying drug delivery systems (SNEDDS) which are isotropic mixes of oils surfactants solvents and co-solvents/surfactants may be employed in the formulation design to increase the oral absorption of highly lipophilic medicinal compounds. The SNEDDS is a potential drug delivery formulation. The SNEDDS may speed and extent of oral absorption by optimizing drug solubility at the intestinal absorption site thanks to its small particle size large surface area and high encapsulation efficiency. Furthermore, the lipid-based formulation of SNEDDS may speed up and boost the transport of medications through the lymphatic system bypassing hepatic first-pass metabolism and therefore enhancing bioavailability. Many formulation-related variables such as surfactant concentration oil/surfactant ratio polarity of the emulsion droplet size and charge of which govern the self-emulsification ability and influence the effectiveness of oral absorption of such medication from such a formulation. The purpose of this study is to address the self-emulsification process composition the function of various excipients formulation methodologies diverse processes evaluation criteria variables impacting SNEDDS biopharmaceutical aspects and future views. To enhance a SNEDDS formulation the phase diagram methodology statistical design of trials and other methodologies may be employed. SMEDDS is explored in this paper for the oral administration of both lipophilic and hydrophilic medicines.

## Performance Analysis of MongoDB in Cloud Environment for Unstructured Data

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### Abstract:

The performance of the MongoDB while hosting medical and other healthcare images within the cloud is important to check. It is possible to realize much-needed performance increment through infrastructure optimization. The assorted performance metrics are often studied systematically. This study helps us to perceive how well MongoDB handles big data within the cloud environment. Performance optimization starts with effective resource allocation and monitoring. The Performance metrics such as Latency time and throughput is measured for various parameters. Performance can be optimized by minimizing the Latency time and improving the throughput. Study and examination of these parameters can be used to monitor the various resources and to find out how the resources are utilized effectively in the private cloud.

## The Sustainable Energy Conservation Designed for Data Center Infrastructure Development Using Machine Learning Model

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### Abstract:

This paper deliberation on feature selection of renewable energy in a machine learning model using a simple linear regression method. A strategic challenge in design and developing sustainable energy conservation for data center infrastructure feature infected to cost and service. Green Energy strategies and Technologies exist today to help optimize space, power, cooling, and resiliency improving operational management and reducing cost and energy consumption. Renewable energy use increased three percent in 2020 as demand for all other energies deteriorated and 2030 portion of added 60% of generation green energy is generated to natural sources. Increases in electricity generation from all renewable sources should push the share of renewables in the electricity generation with hydropower, wind power, or solar energy to thirty percent in 2021. Renewable electricity generation in 2021 is set to expand by more than 8% to reach 8 300 terawatt-hours, the fastest year-on-year growth since the 1970s. Solar and wind are established to contribute two-thirds of renewables growth.

## Synthesis and Antimicrobial Activity of 2-[(4'-ARYLIDINE-5'-OXO-2'-PHENYL)IMIDAZOLYL]-1'-YL]-3-Phenyl Propanoic Acids

*Dr. Govind Vagadiya<sup>1\*</sup>; Viral Kariya<sup>2</sup>; Suresh Koradiya<sup>3</sup>*

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### Abstract:

5-Oxo-imidazoline derivatives showed good therapeutic activity, with a view of getting to synthesis 2-[(4'-arylidine-5'-oxo-2'-phenyl) imidazolyl]-1'-yl]-3-phenyl propanoic acids (1a-1n) have been synthesized, all the synthesized compounds were characterized by TLC, IR, 1H NMR, Mass spectral data. All the synthesized compounds (1a-1n) were screened for their antimicrobial activity at 40 µg concentration.

## Predicting Fishing Effort: Data Collection for machine learning model using Scientific and Indigenous Method

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### Abstract:

In this paper, we will look at a unique, high-value fishing dataset that is created by combining two data sources: fishing boat trajectories catch reports using indigenous technique (i.e., short-term sea storms, Data about fishes found in different seasons, fish breeding time, the temperature of the sea water, Data is collected using time factors (low and tides), sunset and sunrise, wind directions and many more), and second relevant environmental data from the satellite server (Sea Surface Temperature (SST), chlorophyll (chl)). The end result is a set of semantic trajectories depicting fishing operations in the Arabian Sea over the course of two years. Initial findings from an exploratory analysis of these semantic high-value fishing datasets, as well as preliminary Machine Learning predictive modelling, are presented. We highlighted a number of ways that we want to implement in the near future to learn from data, facts, and knowledge that will be helpful for fisheries management. Other areas of heavy fishing activity are likely to have similar data and might implement strategies similar to those presented here in their own environment.

## Internet of Things(IoT) Enhance by Quality of Services(QoS): a Review

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### Abstract:

By providing its services, the Internet of Things (IoT) was established to automate human health. This incredible technology possesses so much power that it has the potential to give ease to human life. To increase the use of any service, first and foremost, its quality must be identified. QoS (Quality of Services) metrics essential to specified first in the Internet of Things and then it will be understood by the user and easily explain their needs by implementing these metrics. This function is a positive development. This work classifies and terms the various IoT and QoS measures, keeping in mind that the three pillars of IoT are Computing, Communication, and Things. By focusing on the areas of QoS metrics, this function assists the Internet of Things(IoT) providers to essential its services, users, academics, and expert describing their requirements developing IoT models.



## Crop Price Data Analysis: a comparison Data Mining and Machine Learning

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### Abstract:

Machine learning and its methodologies are used in agribusiness domains to predict edit costs based on stock availability and generation. On a daily basis, a massive amount of data is generated through the display of farming products. Horticulture has a large amount of data, but unfortunately, much of it isn't able to find out inconspicuous details in information. Edit cost estimates are more beneficial to agriculturists and the agriculture society since they demand proper timing. Information mining procedures that have progressed play a critical role in the discovery of hidden design in data. Following Designs, Cluster Analysis, and visualization methodologies are used to provide a unique representation to predict the horticultural edit cost. Past trim cost, climate, current advertise cost, stock accessibility, and up and coming trim generation in current year or season are all used to compare information mining procedure execution. Recently, the most often used programmer has been designed for cost inquiry rather than cost determination. When compared to individual agriculturists in various countries with stable environments, India's agribusiness generation is exceptionally instable, and without appropriate MSP, it will not benefit agriculturists and farming crew. If ranchers and agribusiness personnel are given the opportunity to appropriate alter costs, destitution in India can be reduced.

## Synthesis & Characterization of Indole and Pyrazole Derivatives for Agriculture Applications

*Dhruv V. Bhalodi*<sup>1\*</sup>; *Mehulkumar L. Savaliya*<sup>2</sup>; *Ravi S. Tank*<sup>3</sup>

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### Abstract:

Indole-Pyrazole base compound is work as a plant growth regulator and protect against some fug present in plant. A pyrazole is an important role in many biologically activity and it's also used in pharmaceutical sector as well as many other chemical sectors. An indole is an aromatic heterocyclic compound, bicyclic structure and in this six-membered benzene ring is bonded with five-membered pyrazole ring. Indole is widely accepted by natural environment and can be produced by selections of bacteria. Indole is widely used in pesticide and agro-chemical industries. Indole also act as a plant growth regulator an example is an Indole-3-acetic acid.

## Python and it's Applications in Future Sustainable Technologies

**Brijraj Kacha**<sup>1\*</sup>; **Priyanka Dobariya**<sup>2</sup>; **Dr. Ashish Kothari**<sup>3</sup>

<sup>1,2</sup> UG Students, Department Of Computer Engineering, Atmiya University, Rajkot, Gujarat, India;

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### Abstract:

Python is high level and object oriented scripting programming language and it has many real time uses. Python is an open source, very easy to use and most importantly beginner supportive software. One of the most important feature of Python is that it is supported by wide range of different libraries using which almost every problems from various disciplines and domains can be addressed and solved by writing codes in the most simplified manner. Smallest task of handling a single number to large data handling such as handling a huge dataset of images through the concepts of Artificial Intelligence Machine learning can be done with the help of Python. In this paper we will introduce python, its features, advantages of using the same over other traditional softwares and some of the applications developed using python which may highlight the diverse features of python.

## Deep Hybrid Learning: a Fusion with Machine Learning in Classification Methods for HCR in Gujarati Language

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### Abstract:

The problem of recognizing Gujarati Handwritten character with vowels opening new future scope where one can use smart phone, website or any handy scanner to convert hand written Gujarati Language into text. It will be very effective to give education in mother language at primary level. Public, Private and Government sectors will be benefited when they get any hand written Guajarati Script and they can directly convert it into softcopy or into text form. There are many methods used to solve this problem. Using CNN we can improve algorithm depending on training data set, mathematical model and other intricacy. Convolutional Neural Network or machine learning is very useful for this. Still there are more chances for improvement and rising accuracy using Machine learning in combination with Deep Learning as a hybrid model. Here we are proposing Deep Hybrid model which is extracting features of HCR using Deep Learning Model and solving classification problem using Machine learning and Deep Learning Both.

## Exploring diversity of halophilic Archaea Culture dependent and culture independent (metagenome) approach

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### Abstract:

Microbial communities in extreme environments, such as those associated with hypersaline habitats, represent tractable systems that can be studied using metagenomic approaches. Because of their relatively low species diversity, it is possible to study the phylogenetic and metabolic diversity that is present in the community. Quite often molecular and culture-based method gives different results and, in some cases, lower diversity is recovered by meta genomic study. Archaeal diversity at genus level is therefore generally very low, hence efforts have been made to isolate and characterize indigenous halophilic archaea from salt pans of “Tata Salt Work” Mithapur, Gujrat. The occurrence and diversity of viable archaea in this extreme environment were assessed by cultivation on four culture media. Additionally, metagenomic analysis of water sample was performed. 16S rDNA amplicon sequencing includes the library construction using specific primers to amplify the variable region of prokaryotic 16S rDNA and data analysis of the 16S rDNA variable region sequence to identify the composition and abundance of prokaryotic microorganisms in the environment. Total 312 features (OTUs) obtained from the sample. Since, most of the annotation obtained from SILVA database was “Unassigned”, blastn search using the feature sequences against “nr” database was performed to get the organism annotation. Out of total 93 features (Chao 1), 66 of them having blast hit and 27 no blast hits. The Shannon’s index and Simpson’s index calculated by metagenomic study is 5.94 and 0.96 respectively. which shows that the site Mithapur is very much diverse. In culturable diversity analysis Sixteen isolates obtained, exhibited different characteristics based on morphology, physiological and biochemical tests. The compiled results of  $\alpha$  haloarchaeal diversity index analysis revealed the site Mithapur is more diverse representing higher richness and evenness.

## Healthcare Application Cloud: a Step towards Green Cloud Computing

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### Abstract:

Cloud computing is well known buzzword that shift the data and computation from the desktop PC and local server to the large data centres. Cloud computing makes use of network of remote server for management of stored data. Generally data are stored in local servers or in personal computer but in cloud computing data are stored in remote servers. Cloud computing provides services over the internet by making use of the hardware and system software available in the data centres. Now a day’s healthcare sector plays a major role the world economy. Now the days like other sectors Healthcare sectors also use technology and social media. Now a day’s healthcare sector also makes use of technology for different testing techniques, modern equipment’s and technology driven surgical instruments and scanning etc. In this sector energy consumption and carbon dioxide emission are more as compared to other sectors. So it is necessary to reduce energy and carbon dioxide emission. In this paper some existing approaches have discussed. Some improved and efficient approaches are also discussed to make the healthcare application cloud green to save global environment and environmental friendly cloud solution in healthcare application cloud.

## Review on Urban Road Traffic Safety Management by Gaussian Mixture Model

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### Abstract:

Traffic safety is extremely important, especially on city streets where traffic volumes are high and traffic conflicts are common. As a result, it is critical to design a methodology for assessing traffic safety. The study's issues are as follows: The common roadway is used by a large number of venerable road users and vehicular traffic. Driving standards are poor, and traffic safety is limited along that section of the road. However, according to field survey data, a lateral separation between the leader and the follower occurs frequently in complex traffic conditions. As a result, we redefined the time-to-collision equation by taking in lateral separation (TTC).

## Analysis of different Techniques for Botnet Detection

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### Abstract:

Botnet is likely to be a major threat to modern computers and digital data. There are also negative consequences for the advanced information system and digital renaming. Thanks to the new technology now data criminals or technology can operate remotely, without being present in the crime scene. They can access data and can use data from a remote location and attack real clients and achieve their authorization and perform a different aggressive exercise. In the early days, the robots built by criminals were unclean. Today, cybercriminals are extremely powerful and can attack with malicious bots on computers and information systems. Modern peer-to-peer bots can come from any form of online security, which is very difficult to find on the network. One of the possible solutions is to use a machine learning (ML) method to detect and identify threats (bot) on a computer or information system network.

## Review on Global Emission and Adaption of Electric Vehicle for Sustainable Development

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### Abstract:

The Indian automobile industry is rapidly expanding, but it is primarily served by internal combustion engine vehicles (ICEVs). The primary source of urban pollution and greenhouse gas (GHG) emissions is ICEVs. The alarming levels of urban pollution are putting enormous pressure on the Indian automobile industry to transition away from ICEVs and toward zero-emission vehicles such as electric vehicles (EVs). Even though the Indian government recognizes and encourages the potential of EVs as a safe transportation alternative, commercialization of EVs has not yet achieved the desired success. There are numerous barriers to widespread adoption of EVs, including high initial costs, driving range anxiety, a lack of proper charging infrastructure, and underdeveloped battery technology, among others. The transportation sector accounted for 25% of total carbon dioxide (CO<sub>2</sub>) emissions from fuel combustion worldwide. Electrification is one of the best ways to create a clean and energy-efficient transportation system. Electric vehicles are an important option for reducing greenhouse gas emissions. Electric vehicles not only reduce reliance on fossil fuels, but they also reduce the impact of ozone-depleting substances and encourage large-scale renewable deployment. The paper provides an overview of studies on the market penetration rate of Electric Vehicles, Hybrid Electric Vehicles, Plug-in-Hybrid Electric Vehicles, and Battery Electric Vehicles, Global Emission by Gas, Economic Sector as well as typical passenger vehicles. The purpose of this paper is to provide an overall picture of the modern Electric Vehicle scenario as well as areas for future growth.

## Isolation and Identification of Nitrogen Fixing Bacterial Strains from Agricultural Soil of Rajkot Region and their Effect on Wheat & Groundnut Seeds

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### Abstract:

Groundnut and wheat both are the most significant crop among all from agricultural crops. Nitrogen is the second largest and essential element for plant intake and production. To enhance the productivity and growth rate of plants, microbial agents are one of the best choices to fix the atmospheric nitrogen for plants. In the present investigation "Isolation and identification of nitrogen fixing bacteria from agricultural soil of Rajkot Region and their effect on wheat & groundnut seeds" was carried out. A study was commenced to explore the occurrence of nitrogen fixing bacteria from soil of Rajkot region. Two soil samples were randomly collected and screened for the isolation of nitrogen fixing bacteria by using Nitrogen-free medium. Total 13 bacterial isolates were shown positive response in the preliminary screening by converting green to blue medium in NFB plates. In secondary screening ammonia production test was carried out. Out of 13 isolates, 5 isolates were shown the highest value of N<sub>2</sub> to NH<sub>3</sub> conversion. Further characterization of 5 isolated pure cultures through colony morphology identification and biochemical properties including gram staining, sugar utilization, catalase test, methyl red test, voges-proskauer test, citrate utilization, starch hydrolysis and nitrate reduction test were performed based on Bergey's Manual classification. In the preliminary identification of bacterial genera were from the 5 bacterial strains 01 shown properties of *Rhizobium* sp., 01 strain belongs to *Bacillus* sp. and 02 strains are shown as *Azotobacter* sp. Further study was carried out to check the effect of culture inoculum on wheat and groundnut seeds for their growth parameter through pot culture analysis. After the 7 days of seeds inoculation from the 5 strains CS8 (*Azotobacter* sp.) enhance the growth of root, shoot and leaves of wheat and groundnut seeds whereas minimum growth yield was obtained from the AGS6 (*Bacillus* sp.). We can consider as the *Azotobacter* sp. is more efficient to fix the atmospheric dinitrogen to ammonia so, that it can be an effective biofertilizer for Agriculture aspects.

## Application of Forward Osmosis for Concentration of Organic Compound

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### Abstract:

Forward osmosis is one of the emerging membrane separation processes, which has drawn attention of many researchers in past few years. It has prominent applications in various areas because of its various benefits in terms of energy and fouling. We have developed the application of forward osmosis for the concentration of organic compounds and separation of water from the same. Presently, many organic compounds are harmful and many are costly which require their recovery for economic operation. Conventional separation methods are more energy intensive and hence non-economical. In this paper, an attempt was made to concentrate N-N Dimethyl formamide and Polyethylene glycol by using MgCl<sub>2</sub> and NaCl as a draw solute. The increase in concentration of organic compound observed significant but flux of permeate was quite low. Concentration of organic compound was measured in terms of refractive index with digital refractometer. Flux of the membrane improved by giving chemical treatment.



## In-Vitro Screening of Transition Metal-Based Heterochelate

*Maulik Raja*<sup>1\*</sup>; *D.H. Jani*<sup>2</sup>; *P.B. Nariya*<sup>3</sup>

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### Abstract:

In Vitro Anti fungal screening of 4-acyl pyrazolone based hydrazides (H<sub>2</sub>An) and their transition metal Mn(III) based heterochelates of the type [Mn(A1)(L)(OAc)].H<sub>2</sub>O, [Mn(A2)(L)(OAc)].H<sub>2</sub>O, [Mn(A3)(L)(OAc)].H<sub>2</sub>O, [Mn(A4)(L)(OAc)].H<sub>2</sub>O, [Mn(A5)(L)(OAc)].H<sub>2</sub>O (Where HL = 5-Chloro-7-iodo-8-hydroxyquinoline (Ciloquinol) was carried out. Different Structural and spectroscopic properties have been studied on the basis of elemental analysis, FT-IR, <sup>1</sup>H-NMR, APT and mass spectral studies like FAB. In vitro antifungal activity of these compounds were tested against selected pathogenic fungus *Candida albicans*, *Aspergillus fumigatus* and *Chrysosporium indicum* respectively. Antifungal screening of ligands and its Mn(III) heterochelate shows clear enhancement in the antifungal activity upon formation of heterochelate.

## Synthesis and Production of Biopolymer from Halophilic Archaea and its Biotechnological Application

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### Abstract:

Polyhydroxyalkanoates (PHAs) are accumulated in many prokaryotes. Several members of the Halobacteriaceae produce poly-3-hydroxybutyrate (PHB), but it is not known if this is a general property of the family. The prime aim of this study was to enumerate predominant archaea from Salt pans of Mithapur, Gujrat region samples, which possess polyhydroxy butyrate (PHB) fabricating potential. From several numbers of bacterial cultures, one culture has the competence to yield PHB, and it was endorsed through Sudan Black B stain, Law and Slepeacky Method and growth in PHB selective media. This PHB fabricating isolate was recognized as MIT-2. The structural characteristics of PHB produced by MIT-2 were studied through FT-IR, <sup>1</sup>H NMR, and <sup>13</sup>C NMR analysis. The peak observed at 1774 cm<sup>-1</sup> on FT-IR analysis is corresponding to the signal band of PHB. In <sup>1</sup>H NMR peaks were noticed at 1.67, 2.37 to 2.71, and 3.38 to 7.68 which corresponding to -CH<sub>3</sub>, -CH<sub>2</sub>, and -CH protons of PHB. About 4 notable peaks were noticed in <sup>13</sup>C NMR analysis at 19.62, 68.27, 40.68, and 169.11 ppm which appeared close to the carboxyl group of PHB.

## Studies on Effect of Foliar Application of Ascorbic Acid on Groundnut (Arachis Hypogaea L.) Plant Under Drought Strees

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### Abstract:

Groundnut is one of the main crops cultivated in India and mainly depends on rain water. Stress due to water deficiency hampers the yield of oilseed crop throughout the world, however foliar application of non-enzymatic anti-oxidant ascorbic acid might be useful to reduce drought induced yield loss. In present study, the role of external application of ascorbic acid in improving the performance of groundnut plants under drought stress was evaluated. Three level of Ascorbic acid including control (1) 0.0mM (control), (2) 0.5mM and (3) 1.0 mM. Were applied on groundnut plant classified in three drought induced stress condition i.e., 100%, 60% and 30% irrigation. The result revealed that imposition of drought stress negatively impacted groundnut plant then well-watered condition. However external application of AsA improved the growth of plant under drought stress by increase in chlorophyll content, relative water content, and electrical conductivity. Which was translated to higher yield and better growth of plant. External foliar application of AsA at 1.0 mM. For 2 times during experiment increased in relative water content, glucose content, total soluble protein, leaf free proline and total phenolic content as compared with control (0.0 mM. AsA) group. In conclusion, foliar application of 1mM AsA in ground nut plant useful to reduce drought induce yield losses and improved antioxidant enzymes & necessary biochemical levels that help in growth & development of plants.

## Some natural extracts from marine algae as low-cost alternatives for synthetic PGRs in Banana micropropagation

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### Abstract:

Marine algal seaweed species are often regarded as a bio-resource. Many have been used as a source of industrial raw material, food, and in therapeutic and botanical applications for many years. Some seaweed products have been widely used as in crop production systems due to many plant growth-stimulating compounds. In the present work, we are trying to do a comprehensive study of the effect of various marine algal extracts and crude powder during in vitro culture of banana to replace synthetic Plant Growth regulators (PGRs) to reduce the production cost studied. Test extracts and crude powder included *Caulerpa racemosa*, *Gracilaria edulis*, *Caulerpa* spp., *Ulva Lactuca*, *Sargassum* spp., *Caulerpa calpelitormis*, *Sargassum wightii*, *Gracilaria* spp. The present study will emphasize the use of this renewable bio-resource in sustainable development of the plant tissue culture protocol of bananas.

## Isolation and Screening of Endophytic Bacteria against Multidrug Resistant Human Pathogen

*Aarjav Pinara*<sup>1\*</sup>; *Rivera Chauhan*<sup>2</sup>; *Dr. Ravi Ranjan*<sup>3</sup>

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### Abstract:

Worlds human population grows rapidly, a variety of new health issues are developing. One of the reasons to be concerned is the rise in drug-resistant bacteria. To solve this problem, we must find new antibiotics. The global fight against antibiotic resistance is required research on antibiotics and other microbial natural products. In our present study, Endophytic bacteria were isolated from four medicinal plants *Azadirachta indica* (Neem), *Vitex negundo* (Nagod), *Justicia adhatoda* (Adulsa), and *Calotropis procera* (Aak). One hundred and six endophytic bacteria were isolated and their antibacterial activity was determined against antibiotic resistance human pathogenic bacteria such as *Salmonella typhi*, *Acinetobacter baumannii*, *Staphylococcus aureus*, Carbapenemase resistant Enterobacteriaceae (CRE). Testing the antibacterial activity of all isolates was done using well diffusion method. Antibacterial activity of endophytic bacteria was detected against Multidrug resistant bacteria. Isolates of VNST (05) exhibited the strongest antibacterial activity against Methicillin-Resistant *Staphylococcus aureus* (MRSA). It can be concluded that endophytic bacteria isolated from *Vitex negundo* have great potential as a new antibiotic source, especially for Methicillin-resistant *Staphylococcus aureus* (MRSA).

## Genome-wide Identification and Target Prediction of *Allium cepa* (sweet onion) miRNAs using Comparative Genomic Approach

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### Abstract:

*Allium cepa* (sweet onion) is an important culinary crop of the Liliaceae family with high therapeutic value. Although sweet onion is a highly valuable plant, less is known about its conserved miRNAs. miRNAs are ~22 nucleotides (nt) long, endogenous, which plays a key regulatory role in post-transcriptional modification. In this study, by using a computational genomic approach and applying a bunch of stringent filters, we identified 15 novel miRNAs belonging to 8 different families. A total of 20 targets of miRNA were reported through the psRNATarget tool which has a significant role in plant biosynthesis and metabolism. The implication of Gene ontology suggests that these targets are involved in molecular, cellular and metabolic processes. These findings will contribute to understand the pivotal role of miRNAs and are expected to be helpful for further research on *A. cepa*.

## Investigation of Pulsed Current TIG parameters for the development of AA 5XXX

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### Abstract:

The Sustainable Development Goals (SDGs) or Global Goals are a collection of 17 interlinked global goals designed to be a blueprint to achieve a better and more sustainable future for all. The responsible consumption and production: Sustainable Development Goal 12 (SDG 12 or Global Goal 12) is one of the 17 Sustainable Development Goals created by the United Nations in 2015. SDG 12 is officially titled: Ensure sustainable consumption and production patterns. Tungsten Inert Gas (TIG) welding is most important, especially welding of aluminum and other metals are most difficult to do. Nowadays, Pulsed Current TIG welding is used for welding of the aluminum alloys. Pulsed current TIG welding process is modified version of TIG welding. Nowadays AA5052 material is used in top production of investment casting applications. That's why this must have good mechanical properties and also resistance to corrosion. For achieving the good mechanical and physical properties of weldment, the optimal selection of process parameters is most important. For the TIG welding the most influential input parameters are selected from the ASME section IX. In this work, the effect of different welding parameters like Peak current, Base current and Pulse per second and frequency is selected for the project work. The filler wire which is used for the project work is ER4043 for similar welding of AA5052, 6mm thick plate joints. Tensile test is done to check the mechanical properties and weld strength of weld joint respectively. General Full Factorial and regression analysis is used for finding out the most influencing input parameter on output result. Optimization of selected parameters done by response surface optimizer. After the optimization, validate the result obtained. Full Factorial method in Design Of Experiments is used for the optimization with MINITAB 21 version is used.

## Widening of Flexible Pavement: a case study of Rajkot City

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### Abstract:

The increase in the number of vehicles will increase the mobility and use of transport infrastructure. Road widening is one of the recommendations that can be used as a solution. However, this solution also increases the volume of traffic volume and security measures. To determine the effect of road widening on the increase in traffic and energy efficiency on the roads, it is important to do research and analytical work. The road network of any city is its way of life, and its performance appraisal is essential for future traffic planning, design, operation, maintenance, etc. Traffic flow in many cities is a mixed traffic feature and traffic congestion is a common problem in many large cities. The project: Widening of Flexible Pavement - Rajkot City: aims to extend roads to the city of Rajkot city in the Gujarat district. Under this project, a 7 m wide single lane road is being upgraded as two lanes. This work involves the upgrading of connecting roads.

## Simulation Studies on Heat Integrated Reactive Distillation Process for Isoamyl Acetate (IAAc) Synthesis

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### Abstract:

In any separation process one of the most important targets is to achieve cost optimization through managing the energy utilization for the degree of separation being the constraint. Reactive Distillation is one such process which combines reaction and separation in one single process unit to reduce the cost of process, and heat integration in such process can add one more dimension of optimizing energy demand. The present work is to simulate and analyze the heat integration aspect of Reactive distillation process for the production of Isoamyl Acetate (IAAc). Rigorous heuristic optimization is done using CHEMCAD simulation software, to arrive at process and design specifications which give minimum energy demand without compromising the product purity (96% pure).

## Synthesis And Biological Evaluation of N-[4-(5-ARYL-2,5-DIHYDROISOXAZOL-3-YL)PHENYL] Cyclopropane Carboxamide

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### Abstract:

Isoxazoles have been reported to have various pharmacological activities like antibacterial, antifungal, insecticidal etc. In order to attain better drug potency, we have prepared isoxazole derivatives of type (II) by the condensation of N-(4-(3-Aryl-acryloyl)phenyl)cyclopropane carboxamide of type (I) with hydroxylamine hydrochloride in presence of KOH., all the synthesized compounds were characterized by TLC, <sup>1</sup>H NMR, Mass spectral data and IR. All the synthesized compounds (2a-1) were screened for their antimicrobial activity at 40 µg concentrati

## Block and Bricks Production using Solid Waste

*Hiren Ramani*

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### Abstract:

The increasing generation of municipal solid waste (MSW) is a major problem particularly for large urban areas with insufficient landfill capacities and inefficient waste management systems. Several options associated to the supply chain for implementing a MSW management system are available, however to determine the optimal solution several technical, economic, environmental and social aspects must be considered. Therefore, Solid waste management is one of the major environmental concerns in India. Landfills are becoming scarce and the cost in building landfill sites are increasing. During transportation of wastes from homes and industries by these transfer station to the dumping sites some fallout from the trucks into gutters. Therefore, this research proposal proposes making of various products like bricks, solid blocks, paver blocks etc.... from the inorganic municipal solid waste to reduce the problems of disposal and transportation of solid waste.

## Development of Titrimetric Method for Estimation of Furosemide Tablets by using Mixed Co-Solvency Process

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### Abstract:

Titrimetric method for determination of furosemide in bulk drug and formulation is described here. In this method, solution of furosemide using different inorganic solvents were titrated against alkaline solution of sodium hydroxide using bromothymol blue as an indicator by mixed co-solvency process. The method was validated and the statistical evaluation of method was performed by inter-day and intraday precision. The accuracy and reliability of the proposed method was ascertained by comparison with a reference method. This method is beneficial over the reported methods for estimation of furosemide tablets in such a way that here we are using inorganic solvents in place of organic solvents and thus the toxicity of solvents is decreasing. Inorganic solvents are cheap as compare to organic solvents that's why the method is cost effective.



## An Emerging Trends in Automobile Sector: an Initiative Towards Clean Energy Mobility Solutions

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### Abstract:

Clean and Affordable Energy was addressed as Goal 7 in SDG. Energy is at the core of social and economical and technological developments. All societies call for Energy needs for health, lighting, communication, mobility, and space comfort. Pollution, the greenhouse effect, and ecological imbalances are all risks associated with relying on fossil fuels for energy. Renewable sources of energy have a key potential to displace fossil fuel-based power generation. The transportation sector is one of the most significant contributors to air pollution, greenhouse gas emissions, and CO<sub>2</sub> emissions, particularly in metropolitan areas, and it is the only sector that has not yet met sustainability goals. Concerns regarding transportation-related emissions are growing, highlighting the need for immediate actions for the transition towards more sustainable systems that address the needs of all social groups, and are more affordable and clean. A systematic plan should be adopted for renewable energy generation, grid energy storage, and optimum utilization. Each country is committed to clean energy transition and carbon mitigation. Globally, renewable energy sources are in serious thought process to conserve Ecology. Resilience with nature is a global target by switching over to green energy.

## Review on Video Summarization using Deep Learning

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### Abstract:

With the emerging technology, the amount of video data generated from the sources like surveillance, sports, interviews, etc. has been increasing drastically. This results in higher processing power, requirement of a huge storage, and a remarkable amount of time consumption. Now, if we want to extract a single information from these larger videos, it becomes difficult accomplish the task as the user needs to monitor the entire video no matter how much larger it is. Again, editing the same video to extract the information require more time and processing power, sometimes at the cost of efficiency of the information extraction technique. Also, the video editing software available can turn out expensive. Hence, we need a technique which can not only fulfill the need of information extraction from the video, but also save time, processing power, and most importantly, do not compromise the quality and efficiency of the output generated in the form of an edited (summarized) video. This can be achieved by various video summarization techniques using the deep learning models, as discussed in this paper.

## Isolation and Characterization of Marine Bacteria Against Antibiotic Resistant Pathogen

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### Abstract:

The plastics of numerous paperwork which includes polypropylene, polyethylene, polystyrene, and polyvinylchloride are being constantly utilized in our day-to-day life. Accumulation of plastic waste has been currently recognized as one of the essential environmental challenges; affecting all existing forms, natural ecosystems, and financial systems worldwide. It is recalcitrant to degradation by microorganisms makes it persist withinside the environment, causing environmental pollution. In this study, 5 different kinds of isolates from dumping site had been screened for capacity to degrade polypropylene in minimum media. They have been recognized primarily based on their morphological and biochemical characterization. The bacterial isolates were capable to grow on minimal media infused with polypropylene as a principal carbon source. This biodegradation capacity of isolates can be further explored for their actual onsite application and solve global environmental problem.

## Isolation and Screening of Rhizobacteria for Various Plant Growth Promoting Attributes from *Trigonella Foenum Graecum* L. (Fenugreek)

Jahal Dangar<sup>1\*</sup>; Gunja Vasant<sup>2</sup>; Shweta Bhatt<sup>3</sup>; Ragini Raghav<sup>4</sup>

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### Abstract:

Plant growth promoting rhizobacteria (PGPR) are an important group of beneficial, root colonizing bacteria thriving in the plant rhizosphere and bulk soil. They exhibit cooperative and antagonistic interactions with the soil microbiota and involved in numerous activities of ecological significance. The present study involves isolation and characterization of rhizobacteria from fenugreek (*Trigonella foenum Graecum* L.) soil sample from different regions of Saurashtra and Diu Gujarat. Total thirty five morphologically different isolates were obtained and further screened for PGP traits including Nitrogen fixation, IAA production, Ammonia Production, Phosphate solubilization, Potassium solubilization and hydrogen cyanide production. Among thirty five isolates seventeen isolates showed nitrogen fixation, thirty five isolates showed IAA production in the range of 8.28 µg/ml to 40.73 µg/ml, thirty one isolates showed ammonia production in the range of 38.1 µg/ml to 97.6 µg/ml, twelve isolates showed phosphate solubilization activity in the range of 87.6 µg/ml to 322.6 µg/ml, twenty five isolates showed potassium solubilization zone in the range of 0.1 cm to 0.4 cm and twenty one isolates showed hydrogen cyanide production. Among all the isolates PGRJ3, PGRD28 and PGRD35 isolates showed highest potential for PGPR and can be useful to promote growth, yield and for sustainable agriculture.

## Isolation and Molecular Characterization of Plant Growth Promoting Rhizobacteria from Groundnut(*Arachis hypogaea* L.) Rhizosphere

*Jahal Dangar*<sup>1\*</sup>; *Gunja Vasant*<sup>2</sup>; *Shweta Bhatt*<sup>3</sup>; *Ragini Raghav*<sup>4</sup>

<sup>1,2</sup> Research Scholars, Department of Biotechnology, Atmiya University, Rajkot

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### Abstract:

Plant growth promoting rhizobacteria (PGPR) have been extensively employed as bio-fertilizers to enhance the soil nutrition for several crop plants. In this study, we have explored for isolation of potential PGPR for groundnut crop from agricultural fields of Saurashtra region, Gujarat. A total of thirty-five isolates from rhizospheric soil with different colony characteristics were isolated. All the stains were analyzed for their potential to display plant growth promoting traits such as indole acetic acid (IAA), hydrogen cyanide (HCN), ammonia and chitinase production, phosphate and potassium solubilization. Thirty-three isolates produced IAA in the range of 17.8-148.2µg/ml, fifteen isolates were positive for ammonia production in the range of 21.4-55.5µg/ml. Twenty-seven isolates produced HCN, 4 isolates were capable of hydrolyzing chitin, 3 isolates displayed phosphate solubilization and thirty-four isolates had potassium solubilization ability. Only RGKP3 isolate displayed all PGP traits positive and the potent isolate was analyzed using 16SrRNA sequencing. The strain has close evolutionary similarity with *Bacillus megaterium*. In future study, the potent PGPR will be analyzed to promote groundnut plant growth, enhanced crop production, and as a potential biofertilizer.

## Isolation and Characterization of Azospirillum from Saurashtra Region

*Sarvangi Rabara*<sup>1\*</sup>; *Dr. Shivani Patel*<sup>2</sup>

<sup>1</sup> Research Scholar, Department of Microbiology, Atmiya University;

<sup>2</sup> Professor, Department of Biotechnology and Microbiology, Atmiya University, Rajkot, India

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### Abstract:

Azospirillum species are widely used to increase the yield of plants and are free-living nitrogen-fixing bacteria, one of the best-studied plant growth-promoting Rhizobacteria. It is commonly found in association with the roots of various plants species. The ongoing study includes isolating Azospirillum species from the roots and soils of the Rhizospheric region. 100 isolates were isolated from the fields of different districts of the Saurashtra region of Gujarat. The significant isolates were isolated from the root surface and inner tissues of roots. 100 isolates were identified by morphological characterization, and 50 have proceeded for biochemical characterization, including techniques noted in the Bergey's manuals of determinative bacteriology 9th edition. 15 isolates gave positive results for biochemical characterization according to Bergey's manuals. Out of 100 isolates, the first 50 were able to produce indoles, from which 3 showed highest production. 13 isolates have proceeded with pot culture against wheat (*Triticum durum* L.), from which three isolates showed the satisfied result.

## Sustainable synthesis/ isolation approach for potential bioactive N-S-O heterocycles via greener routes: A Review

*Dr. Govind Vagadiya*<sup>1\*</sup>; *Manoj Dodiya*<sup>2</sup>; *Nivruti Chauhan*<sup>3</sup>

Assistant Professor, Department of Industrial Chemistry, Atmiya University, Rajkot, Gujarat, India;

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### Abstract:

N-S-O containing heterocycles are promising bioactive compounds. Exploration for the synthesis approach of these heterocycles has been underway for quite an extended period, but the primary focus of this synthesis approach was to explore novel heterocycles and map them with their bioactivity. Now as the exploration is approaching its peak level the scientific community has shifted the whole endurance pragmatically toward its sustainability. The path of synthesis which consumes hazardous utility compounds is now being reorganized and optimized with less hazardous utility compounds. The atom economy, greener solvents, end-of-life decay, microwave, and ultrasonic waves assisted less energy-intensive synthesis, incorporation of smart catalyst & biocatalysts, real-time analysis at bulk synthesis facilities, etc principles are now being implemented at their utmost intensity.

## A Generative Design Approach to Optimize Weight & Performance to build a sustainable product – a Review

*Indrajitsinh J. Jadeja*<sup>1\*</sup>; *Dr. Nirav P. Maniar*<sup>2</sup>

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### Abstract:

A generative design is a exploration of CAD design model. The approach of Generative Design is applicable for the complex multi criteria design problem where performance criteria are un-computable. The fundamental base of this method to building a genotype of the design within a history of parametric based CAD system & prepare a sustainable product then further explore the design by its varying parameters randomly within the constrained and its objective function to develop a set of distinctive design sets. Afterward Generative design filtered through various constrained envelopes which representing geometric viability, manufacturability, cost and other performance criteria. Then by this method designer able narrower their area for selecting a appropriate design from vast spaces. Its ability to work seamlessly with current CAD based design practices from early conceptual to detailed design is demonstrated. As machine Structure is a vital of a machine because 50 to 60 percentage weight will be concentrated or consumed by a machine structure. So, for exploration of Generative Design Approach Structure of machine selected for optimize it's weight and performance.

## Experimental Investigation of Weld Hardness in TIG Welding of AA6061

*Gautam Makwana*<sup>1\*</sup>; *Dr. G.D. Acharya*<sup>2</sup>

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### Abstract:

Tungsten Inert Gas (TIG) welding is extremely significant, especially when welding aluminium and other metals. Due to the advantages of high specific strength, high process ability, predominantly anti-erosion, increased conductivity, eco-friendly nature, and recoverability, aluminium alloys are widely used in the fields of electric module packaging, electronic technology, automotive body structure, wind and solar energy management. The study's goal is to go over prior research on aluminium's uses, applications, and workability criteria. Many types of aluminium alloys have been used by past researchers, with just 6061 being the least researched of them all. In this research the optimum selection of process parameters is critical for producing acceptable mechanical and physical qualities in a weldment. In this research work the selected parameters for the welding are as weld current, gas flow rates and included angel. The filler wire is used for the project work is ER4043 of 2mm dia. Optimized parameters of AA6061 is obtained and ANOVA is used for validation.

## Food Security, Safety, and Sustainability – Establishing the connections

*Darshit Hirpara*<sup>1\*</sup>; *Manojkumar Sheladiya*<sup>2</sup>; *Dr. Ghanshyam Acharya*<sup>3</sup>

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### Abstract:

Looking at the global level, the production of the food is higher than the consumption, so no-crisis of the food at all. The problem is its safety, distribution and avail access to all living entities. It is fundamental right of each individual to have access of sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life. Food production is a significant topic that influences every country's economic, environment, and social aspects. From a sustainability standpoint, food safety is a critical component that integrates social and environmental challenges and provides a platform for positive change in both areas. It is reported that around 30% of domestic and foreign food products evaluated by the food inspection agency contained hazardous pesticide residues. This emphasizes the need for more sustainable food production systems that will not only meet the demands of future generations, but will also be safe and healthy for society and the environment. This paper asserts that, in the long run, food safety and security goals must be aligned in order to achieve sustainability. In this context, we need novel solutions for our future food security and sustainability without compromising food safety.

## Experimental and Simulative Investigations on Sustainable Turning of a C45 Material

**Dhairya Solanki**<sup>1\*</sup>; **Manojkumar Sheladiya**<sup>2</sup>; **Dr. Ghanshyam Acharya**<sup>3</sup>

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<sup>3</sup>Professor Emeritus, Atmiya University, Rajkot, Gujarat, India;

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### Abstract:

The C45+N material was investigated experimentally and simulated based on variation of cutting parameters and different cutting inserts. The investigations were carried out in order to analyze the force components, the quality of surface generated after turning and equal emphasis was laid on the formation of chips. The standard cutting parameters used were Cutting speed of 200 m/min, Feed of 0.15 mm and Depth of cut of 0.4 mm. Problems like higher values of passive force, higher surface roughness and chip tangling were analyzed and their probable reasons were found. The optimal combination of cutting parameters and the cutting insert was determined. 2D simulations were performed using DEFORM software. Johnson-Cook (JC) model was used to see the effect on resultant force at different uncut chip thickness and different cutting-edge rounding. At end the experimental results were compared with the simulated results in order to validate the model used for simulation. Based on the investigations, short suggestion is made in terms of suggested insert and which cutting parameters should be used to overcome the problems hence leading to optimal utilization of the resources which is the demand of Sustainable Development Goal in general and SDG 12 in particular.

## Study of Induction Period and Nucleation of Amino Acids (L-Histidine, L – Threonine & DL-Methionine) Doped KDP Crystal

**Deepak Kumar Dave**<sup>1\*</sup>; **R.R. Hajiyani**<sup>2</sup>; **K. D. Parikh**<sup>3</sup>

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### Abstract:

The solubility, induction period and nucleation parameters studies of pure and amino acids (L-Histidine, L – Threonine & DL-Methionine ) doped potassium dihydrogen phosphate (KDP) crystals have been studied. Solubility of pure and amino acids doped KDP crystals were studied at different temperatures and induction period was measured at different supersaturation level. By using classical theory of nucleation different nucleation parameters were calculated. Values of different parameters were found to be larger for amino acid doped crystals than pure KDP crystal.

## Experimental Study on Bituminous Pavement by Using E-waste : a Review

*Milap Vala*<sup>1\*</sup>; *Ashraf Mathakiya*<sup>2</sup>; *Dr. Hemantkumar Sonkusare*<sup>3</sup>

<sup>1</sup> M.Tech Scholar, Department of Civil Engineering, Atmiya university.;

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### Abstract:

The disposal of abundant toxic and nondegradable waste material is a major threat to the environment. And also transportation system has many challenges in terms of sustainability The use of electronic components has expanded to a greater extent in the last decade, resulting in a surge in E-Waste. In many regions, a substantial quantity of defective electronic printed circuit boards (E-PCB) is dumped into the environment without being properly recycled. Nowadays, the most popular approach is to utilize E-PCB waste in the building sector. The goal of this study was to replace a specified percentage of bitumen with E-PCB waste in the form of fine powder and non-metallic chips. To achieve the best result, bitumen was substituted with varying percentages of E-PCB waste as a fine powder. The optimum value is utilized as a constant when E-PCB non-metallic chips are used to replace coarse aggregate in bituminous mixes. The qualities of bitumen (including penetration value, ductility, softening point, flash & fire point, and industrial viscosity) as well as the Marshall stability of several bituminous mixes are investigated in this study. The use of E-waste instead of bitumen improved the Marshall stability of the bitumen.

## Challenges to Implement Deep Learning and Machine Learning in Natural Language Processing

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### Abstract:

“Natural Language Processing” using “Deep Learning” and “Machine Learning” are the most significant areas of “Artificial Intelligence” to focus in the succeeding eras. To build computer systems that perform as well as using natural languages as humans do that is an issue. Numbers of natural languages are huge and it contains extremely several sentences. Moreover, there is a lot of uncertainty in natural language. Several words have same meaning however sentences have different senses in many contexts. This makes write program that understands a natural language, a difficult tasks are computing have evolve by maturing vital areas in analysis and development. Machine Learning needs huge data to function to make pieces of training data. The more data NLP models are trained is like big challenge in any system. Here we listed challenges or limitations to implement Deep Learning and Machine Learning in Natural Language Processing. Even we explain how to overcome such challenges and get advantages of it.



## Identifying Connectivity Patterns in Human Brain Networks

*Dr. Priti Sadaria*

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### Abstract:

The contemporary science issue of connectomics is identifying connection patterns in human brain networks, with a special focus on the use of graphs to evaluate the topology of nervous systems at every scales, from macro to micro. The major goal of this matter is to talk about existing studies that have used graph-based approaches to scrutinize connectivity samples in the human brain network with use of fMRI data. So I am making something with Python, Matlab, and Tableau so that we can use MRI to figure out what sickness we have. This report gives a comparative analysis of human brain networks, which is generally utilized for network identification. The primary focus is on the project domain, which is a subset of person neuroscience; the graph theory is typically used to for effective connectivity. This review give details how to use diagram theoretical metrics to draw neurobiological conclusion about the mechanisms underpinning human cognition and behavior, as well as various brain illnesses.

## Stock Market Prediction Using Machine Learning Algorithms

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### Abstract:

In the financial world stock trading is considered as one of the most important activities. Stock market prediction is an act of determining the future value of a stock and other financial instrument traded on a financial exchange. Stock market prediction is considered as a crucial and challenging task due to its non linear, evolutionary, complex and dynamic nature. Most people do invest in the stock market based on certain predictions. For such predictions, people do searches about several tools and techniques which may increase their profits, with minimization of risks. Deploying traditional methods like fundamental and technical analysis may not ensure reliable prediction. For this, several LSTM – RNN models were employed to get analysis of separate sources and the several computational methods with Weighted Average and Differential Evolution techniques were used for more accurate prediction of the stock prices. And based on those computational models and applied techniques highly accurate predictions were made for one-day, seven-days, 15-days and 30 days for the future. Based on that accurate predictions investors could gain an insight into what they are inventing for and the companies to track how well they will perform in the stock market

## Solution of Linear Equations by Gauss Elimination Method

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### Abstract:

In this paper direct conditions are examined exhaustively alongside elimination strategy. Gaussian elimination and Gauss Jordan plans are done to settle the straight arrangement of condition. This paper includes lattice presentation, and the immediate strategies for direct conditions. The objective of this exploration was to investigate different disposal strategies of direct conditions and measure the exhibition of Gaussian elimination and Gauss Jordan strategy, to track down their overall significance and benefit in the field of representative and numeric calculation. The reason for this exploration is to modify a starting idea of direct conditions, framework theory and types of Gaussian disposal through which the exhibition of Gauss Jordan and Gaussian elimination can be estimated.

## Survey on Research Hurdles in Wireless Sensor Network Applications

*Paras Kalariya<sup>1\*</sup>; Ankit Kalariya<sup>2</sup>; Hiren Bhatt<sup>3</sup>*

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### Abstract:

Remote Wireless Sensor Networks (WSN) are utilized in assortment of fields which incorporates military, medical services, natural, organic, home and other business applications. With the immense headway in the field of installed PC and sensor innovation, Wireless Sensor Networks (WSN), which is made out of a few a huge number of sensor hubs which are fit for detecting, activating, and transferring the gathered data, have had surprising effect all over the place. This paper presents an outline of the different exploration issues in WSN based applications.

## Sustainable Design Consideration Against Flow Induced Vibration in Shell and Tube Heat Exchanger

*Jignesh Pathak*<sup>1\*</sup>; *Dr. Shailee G. Acharya*<sup>2</sup>; *Dr. Ghanshyam D. Acharya*<sup>3</sup>

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### Abstract:

Sustainable technology can play a vital role to fulfil sustainable development goals. Sustainable design consideration for shell and tube heat exchanger can predict & substantially prevent failure due to flow induced vibration. Flow induced vibrations are generated by the fluid which are circulating around and between heat exchanger tubes located inside the shell. Many parameters acting independently or in conjunction with each other can affect the flow induced vibration analysis. One must be cognizant of these parameters and their effects should be accounted for in the sustainable heat exchanger design. This paper provides possible ways to correct conditions leading to tube vibration damage & substantially fulfil the sustainable development goals 8 & 12. Sustainable design of heat exchanger can fulfil the targets 8.2 & 12.5 of sustainable development goals (SDGs). This paper also explains in depth vibration analysis of a real-world project in accordance with TEMA regulations.

## Comparative Study of Cryptography Algorithms (Blowfish And Skipjack)

*Jitendrakumar P. Radadiya*<sup>1\*</sup>; *Dr. Haresh B. Tank*<sup>2</sup>

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### Abstract:

The critical goal coordinate the deal of any encryption algorithm ought to be gotten against unapproved attacks. For each applied application, execution and the cost of executions are also huge concern. A data encryption algorithm wouldn't be extremely valuable if it is secure enough anyway relaxed in execution since it is a not surprising overt repetitiveness to introduce encryption technique in various applications, for instance, electronic business, banking and online trade dealing with applications. Implanting of encryption algorithm in various applications moreover hinders a hardware execution and is as such a huge justification behind defiled by and large execution of the system. Approach: In this study, the presentation of the two of the famous secret key encryption algorithms (Blowfish and Skipjack) was contemplate. Results: Blowfish and Skipjack, had been executed and their show was ponder by encoding input records of moving matter and sizes. The algorithms had been completed in a uniform language C#, using their standard specifics to allow a fair relationship of execution speeds.

## Towards Sustainable Public Building Cooling: a Technical Theory of Solar Photovoltaic-assisted Cooling System

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### Abstract:

The adverse effect of climate change leads to rising in the earth's temperature. The increased temperature and the changing lifestyle of humans are responsible for the required cooling for comfort globally. Hence in recent years, the requirement for building cooling increased rapidly. Especially, in India, the demand for air conditioners amplified significantly. This case is very critical when it comes to public buildings (i.e. hospitals, universities, shopping malls). Such high demands increased the burden on the national grid and induce fossil fuels used for electricity production. On the other hand, India is blessed with a great amount of solar energy with 300+ solar days. To supply sustainable cooling energy, the presented study demonstrates the utilization of available solar energy through the photovoltaic-assisted cooling system. To achieve the research aim of the presented study, it identifies the cooling demand of a typical public building at various locations (Mumbai, Delhi, Chennai, and Kolkata) in India. Later, to check the feasibility, the cooling demand was fed to the simulation software (HOMER) to size the technical specification of the energy supply system. The study identified that there is a huge potential available for solar PV cooling in public buildings for all case study locations. Due to the high amount of solar irradiation, the solar fraction was considerably high which shows that solar energy can contribute to cooling supply and therefore ensure sustainable energy supply.

## A Review and Summaries of Current Solar Cooker Effective Parameter

*Vanraj K. Dodiya*<sup>1\*</sup>; *Chetankumar M. Patel*<sup>2</sup>; *Bharat M. Ramani*<sup>3</sup>

<sup>1</sup>Assistant Professor, Mechanical Engineering Department, School of Engineering, RK University, Rajkot;

<sup>2</sup>Assistant Professor, Mechanical Engineering Department, C U Shah Polytechnic, Surendranagar, Gujarat, India;

<sup>3</sup>Professor & Principal, Shri Labhubhai Trivedi Institute of Engineering & Technology, Rajkot, Gujarat.

\*Email: vkdodiya@gmail.com

### Abstract:

We use different forms of energy for the variety of purposes i.e. electricity, cooking, water heating, irrigation, transportation, desalination, water distillation and industrial usages. The majority of the production of the energy is by burning of fossil fuels, which has a known challenge of pollution, declining of the sources and increased cost. On the contrary, solar energy is easily available and free-off cost and now it is also used for many applications. One of the applications which is under research consideration in this is cooking. At present, three types of solar cookers are available in the market e.g. Box type, Parabolic type and Panel type. The drawback of solar cooking is the unavailability of the sun during off-shine and night hours. This drawback can be eliminated by using a thermal energy storage arrangements. Thus, it makes it sustainable in terms of affordable and clean energy. In this paper detailed review is presented for sustainable solar cookers with heat storage materials. It is observed that various heat storage materials have potential to supply energy during off sine hours for moderate cooking. It is further observed that this kind of novel solar cooker can be the best available option for the rural areas.

**In Vitro Evaluation of Botanicals Against Fusarium Oxysporum Causing Wilt of Cumin***Bhavna Jagani<sup>1</sup>; Dr. Minaxi Parmar<sup>2\*</sup>; Dr. V. N. Patel<sup>3</sup>*<sup>1</sup>Research Scholar, Department of Microbiology, Atmiya University of Rajkot, India;<sup>2</sup>Assistant Professor, Department of Microbiology, Atmiya University of Rajkot, India;<sup>3</sup>Research Scientist, Dry Farming Research Station, Agriculture University of Junagadh, Gujarat, India.*\*Email: minaxi.parmar@atmiyauni.ac.in***Abstract:**

Cumin (*Cuminum cyminum* L.) known as 'Jeera' or 'Jiru,' belong to the family 'Apiaceae.' Cumin is a vital seed spice crop of India. The most dreaded disease in the cumin crop is Fusarium wilt caused by *Fusarium oxysporum* f.sp. *cumini*, and it is a significant production constraint for cultivating the cumin crop in Gujarat as in India. For eco-friendly management of this disease, seven different plant species were utilized. Crude plant extracts were prepared in water, acetone and cow urine as solvent at different concentrations (5%, 10%, and 15%). An in vitro antifungal activity of these plant extracts was determined by poisoned food technique. All the plants exhibited significant antifungal activity. It was found that the highest inhibition was recorded for *Aloe barbadensis* miller (90.48%) extract in water, followed by *Triumfetta pilosa* (89.88%) extract in acetone and *Azadirachta indica* (86.38%) in cow urine at 15% concentration (at  $p \leq 0.01$ ). The lowest inhibition was recorded for *Ocimum tenuiflorum* (72.42%) extract in water, (60.45%) extract in acetone and (63.5%) extract in cow urine at 15% concentration.

**Sustainable Design of Crank Shaft for Power Press SNX-80***Darshan Tratiya<sup>1\*</sup>; Dhairya Solanki<sup>2</sup>; Dr. Ghanshyam Acharya<sup>3</sup>*<sup>1</sup> Research Scholar, Department of Mechanical Engineering, Atmiya University, Rajkot, Gujarat, India;<sup>2</sup> Research Assistant, Technische Universität Dortmund TUD, Faculty of Mechanical Engineering, Germany;<sup>3</sup> Professor Emeritus, Atmiya University, Rajkot, Gujarat, India;*\*Email: tratiyadarshan@gmail.com***Abstract:**

The current course of action for each individual is sustainable living with nature and accepting that 'Existence is coexistence'. The current paper addresses the SDG 12.1 with official wording Implement the 10-Year sustainable consumption and production framework. Engineering materials are a precious gift from nature and its sustainable usage is the responsibility of human beings. The main aim is reduction of material usage in power press crankshaft by design modification using Finite element analysis (FEA). The provided solution also targets reduction in bending deflection and improvement in von Mises, maximum principal and maximum shear stresses.

## A Novel Synthesis & Characterization of Indole Compound with Presence of Pyrazole & Chalcone Base Moiety

*Dhruv V. Bhalodi*<sup>1\*</sup>; *Mehulkumar L. Savaliya*<sup>2</sup>

<sup>1</sup> PG student, Faculty of Science, Department of Industrial Chemistry, Atmiya University, Rajkot ;  
<sup>2</sup> Assistant Professor, Faculty of Science, Department of Industrial Chemistry, Atmiya University, Rajkot;  
\*Email: dhruvbhalodi17@gmail.com

### Abstract:

A pyrazole is a widely used in many biologically activity and it's also used as a pharmaceutical sector as well as agro-chemical sector. Aromatic heterocyclic compound together with bicyclic structure and six-membered benzene ring is bonded with five-membered pyrazole ring is known as Indole compound. Indole is extensively accepted by natural environment and can be synthesized by some selections of bacteria. Indole is widely used in a Plant Growth Regulator, and some agro-chemical sector. A best Indole derivative is an Indole-3-acetic acid used in Plant Growth Regulator.

## A Series of Novel Synthesized Schiff Base Compound including Pyrazole, Chalcone moiety & their Anti-Bacterial Activities

*Dhruv Bhalodi*<sup>1\*</sup>; *Nirav Ajudiya*<sup>2</sup>; *Dhaval Tank*<sup>3</sup>

<sup>1,2</sup> PG Student, Faculty of Science, Department of Industrial Chemistry, Atmiya University, Rajkot;  
<sup>3</sup> Assistant Professor, Faculty of Science, Department of Industrial Chemistry, Atmiya University, Rajkot, Gujarat, India.  
\*Email: dhruvbhalodi17@gmail.com

### Abstract:

In research paper, synthesized of novel schiff base compound including pyrazole and chalcone base moiety. This compound work as an antibacterial activity against gram-negative and gram-positive bacteria. A Pyrazole base drugs are highly used in pharmaceutical sector as an anti-fungal, anti-bacterial, anti-oxidant agents and schiff base compound is also work as an anti-bacterial agents and anti-fungal agents and its also used in agriculture sector.

## Journey to Chaos and Back Through Reclamation of Foundry Sand

*Manojkumar V. Sheladiya*<sup>1\*</sup>; *Dr. Shailee G. Acharya*<sup>2</sup>; *Mr. Jwalant Kagathara*<sup>3</sup>

<sup>1</sup> Ph.D. Scholar, Gujarat Technological University, Gujarat, India & Head,

<sup>2</sup> Department of Mechanical Engineering, Atmiya University, Rajkot, Gujarat, India

<sup>3</sup> Assistant Professor, Mechanical Engineering Department, SVIT, Vasad, Gujarat, India;

<sup>3</sup> Ph.D.Scholar, University of Bremen, Germany.

\*Email: mvsheladiya@gmail.com

### Abstract:

First and foremost is the need for exploring the scientific basis of the concept of sustainability. In this paper, the effects of 5% fresh sand additions on the mechanical properties of furan no-bake resin sand mold for the electrical motor body have been investigated systematically. The tensile strength (TS), compressive strength (CS), and transverse strength (TrS) of the mold specimens and scratch hardness (SH) of the mold have been evaluated against input parameters resin, catalyst, and temperature. Along with that other sand testing methods i.e. grain fineness number (GFN), Loss on Ignition (LoI), Potential of Hydrogen (pH), and sand topology of reclaimed sand are evaluated. For the economic justification of the sand casting process, usage of reclaimed sand becomes a necessity and this paper is focused on the investigation of mechanical properties of the mold with reclaimed sand percentage as high as 95 %. With the usage of the specific quantity of resin, catalyst and with a particular sand temperature, the required mechanical strengths of the mold is possible even with the usage of almost reclaimed sand. The basic concept of eliminate, reuse, reduce, recycle can be very well implemented for foundry sand to achieve the goal of sustainability.

## FDM Assisted Patterns for Sustainable Solution in Investment Casing Applications

*Khushbu Patel*<sup>1\*</sup>; *Dr. Shailee G. Acharya*<sup>2</sup>; *Dr. Ghanshyam D. Acharya*<sup>3</sup>

<sup>1</sup> PhD Scholar, Gujarat Technological University, Ahmedabad, India;

<sup>2</sup> Assistant Professor, Mechanical Engineering Department, SVIT, Vasad, Gujarat;

<sup>3</sup> Professor Emeritus, Atmiya University, Rajkot, India;

\*Email: khushbutpatel@gmail.com

### Abstract:

Fused deposition modelling is widely applied in every field. Wax pattern in investment casting could not produce some small and intricate shapes and also there are chances of failure while moving the pattern in shop floor, therefore use of FDM in investment casting makes user more convenient for such applications. ABS and PLA materials are widely used in fused deposition modelling. This paper focuses on FDM process, with the outlook of sustainability. This guideline leads to optimum and sustainable solutions such as minimum material consumption and minimum environmental impact in the investment casting applications.



## Evaluate Effect of Pulsed TIG Welding Process Parameters on Intergranular Corrosion Behaviour of AA 5052 for Sustainable Solution

Devang Bharada <sup>1\*</sup>; Pratik Kikani <sup>2</sup>; Sagarkumar Shah <sup>3</sup>

<sup>1</sup> P.G. Student, Mechanical Engineering Department, Atmiya University;

<sup>2,3</sup> Assistant Professor, Mechanical Engineering Department, Atmiya University, Rajkot, Gujarat;

\*Email: devangbharada786@gmail.com

### Abstract:

A set of 17 interconnected global goals for the design of a better and more sustainable future for everyone is known as the Sustainable Objectives. To complete the present assignment, Goal 8 and Goal 12 of the Sustainable Development Goals, Ensure responsible consumption and production patterns, must be met. Aim 12.1 is used to accomplish the aim. Establish a ten-year framework of programmes on sustainable consumption and production patterns, taking into account the capabilities and development of emerging countries. The main aim of this research is to find the corrosiveness behaviour of the aluminium alloys for the marine structures in the deep sea. The effect of pulsed current TIG welding process parameters on intergranular boundary conditions of aluminium alloys has been carried out for various automobile and marine applications. For this work a method known as Nitric Acid Mass loss Test (NAMLT) which explains a procedure for constant immersion intergranular corrosion testing of aluminium alloys. Current test is only applied to wrought alloys. It covers type of specimen, specimen preparation, environmental test and exposure method. The experimental settings were optimised using a factorial experimental approach. The significant pulsed current parameters were discovered using the analysis of variance technique. The model was created using regression analysis. Intergranular corrosion potential values have been computed using the established model for various combinations of pulsed current parameters, and the results have been thoroughly examined.

## A Spontaneous, Convenient Synthesis and Biological Evaluation of Indole Derivatives

Mamta H. Chauhan <sup>1\*</sup>; Nilesh L. Solanki <sup>2</sup>; Neha K. Baku <sup>3</sup>; Viresh H. Shah <sup>4</sup>

<sup>1</sup> Assistant Professor, Government Science college, Veraval;

<sup>2,3</sup> Research scholars, Department of Chemistry, Faculty of Science, Atmiya University, Rajkot.;

<sup>4</sup> Ph.D. guide Department of Chemistry, Saurashtra University, Rajkot.;

\*Email: drmamtachauhan83@gmail.com

### Abstract:

Oxindoline derivatives are interesting heterocyclic compounds which show diverse biological and pharmacological properties. In this research oxindoline derivative was prepared by one-pot condensation reaction of isatin, dimedone, and various active methylene using piperidine as a basic catalyst and methanol as a solvent under stirring at room temperature. The products were characterized by FT-IR, Mass, <sup>1</sup>H NMR and <sup>13</sup>C NMR spectroscopy.

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## **Track 4**

# **Indigenous Knowledge Systems (IKS)**



## Happiness: Aim of Life

*Rinkoo S. Modiani\**

Assistant Professor, Department of English, Tolani Institute of Commerce, Gandhidham, Gujarat

\*Email: rinkoomodiani@gmail.com

### Abstract

What is the aim of life? Happiness. But how happy is our country. We are on 139 positions in world. Finland occupies first place in world. What is the essence to bring happiness in life? Money, fame are these true sources of happiness? If so, not a single poor person can be happy. But they seem to be happier. We teach our children successful mantras, ambition, ways to achieve goals, ways to earn wealth, but do we teach them how to be happy? Bhutan does not count GDP, they count GDH. We should also inculcate these feelings in our citizens, how to be happy. This paper studies how to inculcate certain things in our daily regime to bring and enhance happiness.

## Bhagvad Geeta for Sustainable Living

*Bhumika Zalavadia<sup>1\*</sup>; Indrajit Jadeja<sup>2</sup>*

<sup>1,2</sup> Assistant Professor, Department of Computer Engineering,  
School of Diploma Studies, Atmiya University, Rajkot, Gujarat, India

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### Abstract

Sustainable development is the balance between environment, equity and economy. In 2015, United Nations adopted total 17 Sustainable Development Goals (SDGs). The purpose to identify these 17 goals also known as Global Goals is to protect the entire planet and to ensure that by 2030 all people live with good health, prosperity and peace. In our Indian Knowledge System, ideas for how to achieve sustainability in different spheres of life like environmental sustainability, social sustainability, economic sustainability, physical sustainability, emotional sustainability etc. are already given in a very beautiful way. Indian scriptures like Vedas, Upanishads, BhagvadGeeta etc. explain the sustainable living in its real sense and it is achievable by every human being. This paper focuses on teachings of BhagvadGeeta for sustainable living. This article is expected to provide the directions to achieve sustainability in different areas of life and move towards the ultimate goal of human being.

## An Indigenous Catalogue of Dye Yielding Plants in Gujarat: a sustainable Step Forward

*Aarti Patel*<sup>1</sup>; *Dr. Shivani Patel*<sup>2\*</sup>

<sup>1</sup> Assistant Professor, Department of Biotechnology,

<sup>2</sup> Professor, Department of Biotechnology, Atmiya University, Rajkot - Gujarat

\*Email: shivani.patel@atmiyauni.ac.in

### Abstract

Gujarat harbors a remarkably rich biodiversity of angiosperms. Some of them produce colors, commonly known as dye-yielding plants. However, many plants remain unexplored for their dye-yielding capacity. The report is the first compilation using the state, and regional flora and published literature on the natural dye-yielding plant in Gujarat into a catalogue that reveals various information regarding the plants and the dyes. This archive records 210 dye-yielding plants belonging to 204 genera and 74 families, along with their vernacular name, plant parts, dye color, dye classification, and dye use. The Caesalpiniaceae, Euphorbiaceae, Mimosaceae, and Asteraceae families constitute the highest species. The genera representing the highest number of species included Acacia, Bauhinia, Senna-Cassia, Terminalia, Ficus, and Indigofera. The plant parts- bark, flower, leaf, and fruit yielded most of the dyes. The majority of the dyes belong to Flavone, Tannin, Anthocyanin, and Anthraquinone classes. The dyes from plant resources are mainly explored as textile dyes, food colorants, cosmetic dyes, and mordants. The documented indigenous catalogue is an addition to the knowledge of the dye-yielding plants and provides an opportunity for their sustainable usage.

## **The Trials and Tribulations that Ail the Indian Education System: a Detailed Study of ‘Grey Sunshine- Stories from Teach for India’ by Sandeep Rai**

*Nishith Mehta \**

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### **Abstract**

A country with a population of more than a 120 million, with the most sizeable working demographic is undoubtedly an envious proposition for any Nation. It promises to be the much required catalyst to usher in India’s much touted arrival as the New Global Superpower. However, as Marcellus rightly points out to Horatio in the world-renowned drama- Hamlet, ‘something is rotten in the State of Denmark.’ The Indian education sector has always been a rather interesting case study for researchers, as it definitely is a long way from the shambles it found itself in post- Independence, however it still is languishing far behind the other developing countries. The issues surrounding the Education sector in India today have compounded into a new high and has turned into a ‘Silent National Crisis’ which tends to go rather unnoticed and unobserved until and unless you witness the ground realities and experience the deep-rooted malaise that surrounds the already ailing Education Sector. Education has always been an equalizing factor which can uplift anyone from the deepest and darkest recesses to the forefront. It enables someone from the fringes to attain their say in societal policy formulations. Education is therefore that elusive ‘holy grail’ that should be the ‘social right’ for every citizen of the country. There also has been an evident lack of proper resource material in this direction, which clearly demarcates the lack of awareness about the hollow crevices that exist in the foundation of the Indian Education System. Very few books/academic journals highlight this issue and Sandeep Rai’s ‘Grey Sunshine’ proves to be the much-needed silver lining as, it does a great job in filling the void that exists when it comes to the awareness about the maelstrom of issues that affect the Indian Education System. The research paper therefore attempts to analyze Sandeep Rai’s collection of real-life accounts and case studies from the ‘Teach India’ initiative in the light of the Silent National Crisis that stares at the nation’s fate, yet is ignored by a majority of the country’s populace. This paper therefore will be an attempt to delineate the issues that plague the Indian Education System in light of SDG Goal 4 that ensures inclusive and equitable quality to all.

## At a Glance : Medieval Indian University Education System

*Parth M. Lakum*<sup>1\*</sup>; *Dr. Ghanshyam D. Acharya*<sup>2</sup>

<sup>1</sup> Lecturer, School of Diploma studies, Atmiya University

<sup>2</sup> Professor Emeritus, Atmiya University, Rajkot- Gujarat

\*Email: [pmlakum@aits.edu.in](mailto:pmlakum@aits.edu.in)

### Abstract

Any Nation's progress and future can be forecasted by taking a glance at their education system. We recognize many profound university around the world in modern era. These university have been spreading knowledge for decades. In medieval India the education system included universities such as Takshashila, Nalanda, Vallabhi Vidhyapith. These Institutions attracted scholars, learners, pupils and researchers from all over the world. Indian subcontinent was thriving with rich knowledge, research and information that attracted visitors from far out lands such as Fa Hein and Huan Tsang[3]. This paper is a humble effort to shed light on the rise and fall of the medieval Indian education system. This paper also deals with relationship of education system of past and present ideology.

## Requisite of awareness about 'Oneness (The Supreme power)'

*Geethu Thattanchery*\*

Assistant Professor, Pragnya College of Management Studies, Pune - Maharashtra

\*Email: [geethuaravind541@gmail.com](mailto:geethuaravind541@gmail.com)

### Abstract

This study conveysthe significance of embrace the principle of'Oneness-AdvaithaVedanta'for upcoming generation. With the appropriate application of this principle in educational systemwill inspire theoverall development of generation as well as economic sustainability. In current scenario, all the sectors of economy facing challenges like violence, competition, aggression. Asthey are indubitably connected with the emotions of people who are part of it, will cause the situations like lack of growth and development. To overcome all these challenges the implementation of various spiritual practicesencompassed with Advaitha Vedantais essential.This reveals,all creatures of entire existence are part of oneDivine energy or Cosmic energy (i.e., TheSupreme Power).That wisdomcan be resultedtheoverall development of future generationand enlighten them with truth of life. It is possible to practice with or without the help of religion because scope of this principle is wider than religion. With systematic implementationof spiritual experiencesamong students, it is achievable to builda developed economy with fruitful generation..

## Keynote Speakers - Inauguration



**Prof. Walter Leal**

*IUSDRP, Germany*

"He is the head of the Research and Transfer Centre & Sustainability and Climate Change Management & at the Hamburg University of Applied Sciences, has been working in the field of environmental and sustainable development since 1987. He initiated the International Climate Change Information Programme (ICCIIP), publishes several international journal and book series and acts as review editor for the International Panel of Climate Change. His main interests are in Sustainable Development, Climate Change and Energy as well as innovation and general Life Sciences."

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**Ms. Anna Lekvall**

*Consul General of Sweden in Mumbai, India.*

"Anna Lekvall is the Consul General of Sweden in Mumbai, India. Anna has over 20 years of experience in international development and democracy. She has held positions at the Swedish Mission to the United Nations, the Embassy of Uganda, the Swedish Export Credit Agency and the Swedish International Development Agency. Anna has served as the Executive Director for the Institute for Democracy and Dialogue at Fryshuset, as Program Manager at International IDEA and before taking up this post she was assigned the task to start up a new government initiative - the Swedish Center for Preventing Violent Extremism (cve.se). Anna is specialized on international economics and development, democracy, diversity and human rights. In 2007 she was granted the Jonas Weiss Memorial Award for her work within the Juba peace process. She holds a BA in International Economics from Gothenburg School of Business, Economics and Law and a Master's Degree in Democratic Development from the University of Uppsala."

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**Prof. Dr. Hiroshi Sameshima**

*Executive Director, University of Miyazaki,  
Director, University Hospital of Miyazaki,*

*Professor, Department of Obstetrics & Gynecology, University of Miyazaki Faculty of Medicine*

"Hiroshi Sameshima is working as professor in Department of Obstetrics and Gynecology and Center for Perinatal Medicine. Research experience includes various programs, contributions and participation in different countries for diverse fields of Gynecology, Health Safety, Health Services."



## Keynote Speakers - Track 1: Sustainable Wellness



**Dr. Lucy Turner**

*Lecturer in Marine Biology, School of Biological and Marine Sciences (Faculty of Science and Engineering)*

"She is a Lecturer in Marine Biology here at the University of Plymouth & divide her time between teaching and research.

In her research she specialise in using comparative eco physiological and bio chemical approaches within interdisciplinary (natural-social science) frameworks to understand the impact of ongoing global change on the marine environment, and to contribute towards sustainable solutions for this. She work across trophic levels and taxonomic groupings and she often use large-scale integrative approaches to my thinking and research. She integrate biochemistry with molecular biology, whole organism physiology and also more recently with cutting edge 'omics' techniques to understand how organisms respond to environmental change, and how this may ultimately influence the functionality of the ecosystem. When these types of data are combined with social science approaches this gives us a very powerful toolkit to respond to the wider effects of climate change on real life scenarios.

At Plymouth she teach on the Marine Biology degree delivering lecturers, seminars and field trips. She hold a PhD in Land crab ecophysiology (University of Bristol, 2010). Prior to this she completed a BSc (University of Wales, Swansea, 2003) and MRes in Marine Biology (molecular and cellular pathway) (University of Plymouth, 2005)."



**Dr. Pramila Thapa**

*Former Registrar & Member Secretary of Senate in Purbaanchal University, Nepal*

"She is a student of Nursing and Public Administration with Masters Degrees. She completed my Bachelor's and Master's degrees in Nursing from Dr MGR University, Tamilnadu, India and my Masters in Public Administration and Education from Tribuban University, Nepal. During the course of my professional career, She has been involved in various organizations such as:

- 1) Founder Principal / Deputy Dean, Purvanchal University, Nepal.
- 2) Founder Member/Board of Director of Green City Hospital, Kathmandu
- 3) Founder Principal / Board of Director, Yeti Health Science Academy
- 4) Principal, Hope International College.
- 5) Executive Board Member, of Nepal Nursing Council.

She had the honour to be appointed as the Registrar at Purbanchal University, a government university, by the Rt. Hon'ble Prime Minister of Nepal. The University has approximately 38000 students, 121 colleges and 75 courses (PU, 2020)."

## Keynote Speakers - Track 2: Sustainable Business



### Prof. Dr. Wolfgang Amann

*Affiliate Professor, HEC Paris in Qatar, Strategy and Business Policy, HEC Paris*

"Prof. Dr. Wolfgang Amann has been designing and delivering executive education seminars for more than 16 years. He currently serves as professor of strategy as well as the academic director of degree and custom programs of HEC Paris in Qatar. He is a graduate of key faculty development programs worldwide, such as Harvard University's MLE, IMD's ITP, IESE's IFP, and EFMD's International Deans' Program. He published 15 books for executives and compiled more than 100 case studies for his executive education seminars. He received several research and teaching awards. Most notably, he was repeatedly honored for delivering the best CEMS course amongst all courses offered in 17 European countries."



### Prof. Dr. Abhijeet Ghosh

*Dean, Lincoln University College, Malaysia*

"Prof Dr Abhijit Ghosh is a fellow of Australian Institute of Management. Prior to joining Lincoln University College, Malaysia as the Dean of the Faculty of Business and Accountancy, Dr Ghosh, worked for Southern Cross University, Perth Campus, Australia as Director of Academic Studies.

He spent more than 5 years with West Coast Institute of Management and Technology, Perth as a Lecturer as well as for Australian Institute of Export for their Graduate Diploma course.

Dr Ghosh's qualifications include, Doctor of Philosophy (PhD) in Management, Master of Business Administration (MBA), a Graduate Diploma of Business (Management Studies), Master of Commerce (Accountancy) and a Bachelor of Commerce (Honours in Accountancy) Assessed and recognised by CPA Australia. During his spare time, Dr Ghosh spends his leisure time with his beautiful wife and 2 daughters, cooking, sightseeing and listening to flamenco music."

## Keynote Speakers - Track 3: Sustainable Technology



### **Dr. Agata Tatiana Stachowicz-Stanusch**

*Professor, Faculty of Management, Canadian University, Dubai*

"Agata Stachowicz-Stanusch, full professor of management, her research reflects her interest in CSR and integrity in management and management education. She has served as the AOMITC Chair and has chaired the AOM Carolyn Dexter Award Committee. She is the recipient of MED's Best PDW and Outstanding Reviewer awards. She has 20 books, published by leading houses like Emerald, Green leaf, Palgrave Macmillan, Information Age Publishing (IAP). In the UN Global Compact/PRME initiative, she has managed an international research team as part of the project "Sensitizing Future Business Leaders: Developing Anti-Corruption Guidelines for Curriculum Change. Agata is an editor of book series in IAP, USA."



### **Prof. (Dr.) Vedvyas Jayprakash Dwivedi**

*Executive Vice President, Indus University*

"Prof. Dwivedi is an Executive Vice-President, Indus University, Ahmedabad, he was Former Vice-Chancellor/Provost Gokul Global University, Siddhpur; Former Vice-Chancellor/Provost C.U.Shah University, Wadhwan City; Former Pro-Vice-Chancellor and Registrar, C.U.Shah University, Wadhwan; Former Director/Principal & Professor GTU & Noble Group of Institutes, Junagadh; Former Head and Associate Professor, Department of E. C. Engineering, CHARUSAT, Changa; Former R & D / Engineer Elecon Engineering Co. Ltd., Vidyannagar; Tata Chemicals Ltd., Mithapur.

He has published 9 patents, 130 research papers, 17 books; Completed consultancy projects of more than 160 Lakh INR; Guided 13 Ph.D., 4 M.Phil, 3 Post Doctorates, 150 M.Tech./B.Tech; Delivered more than 100 expert talks on/off line in 45 universities in 20 countries. He is a Member of 30 professional bodies, Inspections, Councils, Boards, Examinations and HR and Purchase Panels. Dr. Dwivedi is a Renowned Expert of NAAC, NEP-2020 and Patent. His fields of expertise and interest are Sensors, RF, Electromagnetics Antennas, Material technology, Nano power devices, HEI Productivity, Spiritual Science of Augmented Reality, Satellite Systems, Human interface Technology and Management."

## Keynote Speaker - Track 4: Indigenous Knowledge System



### Prof. (Dr.) Shailendra Singh

*Professor and Dean (Research) at IIM Lucknow*

"Prof. (Dr.) Shailendra Singh is a distinguished academician, visionary institution builder and illustrious management guru. He has more than 35 years of vast and varied experience in research, teaching, training, administration and consultancy post his Ph.D. Currently, he is serving as the Professor (HAG) and Dean (Research) at the Indian Institute of Management Lucknow. Recently, Prof. Singh completed a 5-year tenure as the Director of the Indian Institute of Management Ranchi (2017-2022).

Prior to that, he was the Professor (HAG) in the area of Human Resource Management and Dean (Research) at the Indian Institute of Management Lucknow. Previously, he has served as the National Convener of CAT, Chairman of crucial departments like Admissions, Fellow Programme in Management, and Financial Aid & International Linkages at Indian Institute of Management Lucknow. He was elected as the President (2013-14) and as a Fellow (2018) of National Academy of Psychology India. Prof. Singh earned MA in Psychology from the University of Allahabad and Ph.D. in Organizational Behaviour from Indian Institute of Technology Kanpur. His Ph.D. Dissertation titled & Executives under Stress: Explorations in the Structure and Dynamics & won Indian Council of Social Science Research Publication Grant Award. Prof. Singh has delivered various lectures, presentations and keynote addresses at premier universities, institutes and business schools around the world which include IITs, IIMs, IIITs, NITs, NLU, Banaras Hindu University, University of Delhi, University of Cambridge (UK), Aston Business School (UK), University of Kelaniya (Sri Lanka) to name a few.

His Vision: Academic Excellence, Collaborative Community, Leadership, Social Responsibility, Global Perspective and Experiential Learning.

His Core Values: Integrity, Trust, Fairness, Excellence, Transparency, Accountability, Openness, Productivity and Service.

His Areas of Expertise: Organizational Behaviour, Emotional Intelligence, Human Resource Development, Business Law, Stress Management, Pedagogy, Psychometric Methods, Ethics, Leadership, Entrepreneurship, Global Awareness and Social Innovation."



## Keynote Speakers - Valediction



### Prof. Dr. Bhola Thapa

*Vice Chancellor of Kathmandu University, Nepal*

"The Vice Chancellor of Kathmandu University. He is also a Professor in the Department of Mechanical Engineering at Kathmandu University. Prof. Thapa holds a PhD from Institute of Energy and Process Engineering, Norwegian University of Science and Technology (NTNU), Norway. He completed Masters of Engineering (Mechanical) from Birla Institute of Technology and Science (BITS), Pilani, India. He has authored of books Engineer of Engineering Education and Engineering Sikshyaka Engineer in Nepali and has more than 90 research publications to his credit."



### Dr. Pooran Chandra Pandey

*Member of the boards of United Nations World Food Programme, USA*

"With over 20 years of professional experience in a range of diverse sectors including consulting, business, non-profits, media, UN and international think tanks, I have worked in senior leadership roles both in India and internationally with focus on strategy, program management, oversight and financial regulations, negotiations, corporate social responsibility, business sustainability and development cooperation issues. I also hold privilege in drafting and working on seminal reports and research works at the highest levels including at the United Nations levels besides being member on the boards of businesses, non-profits and United Nations."



### Dr. Sheldon Schuster

*President and Professor, KGI (Keck Graduate Institute), USA*

"Sheldon M. Schuster became the second president of Keck Graduate Institute (KGI) on July 15, 2003, succeeding founding president Henry E. "Hank" Riggs. At the time, the Institute had just one academic program and approximately 50 students. Under his leadership, KGI has shown tremendous growth, with 600 students enrolled in more than a dozen programs. With KGI's entrepreneurial approach and industry connections, Schuster and the community of faculty and staff seek to provide pathways for students to become leaders within healthcare and the applied life sciences. A San Mateo native, Schuster holds a BS in biochemistry from the University of California, Davis and a PhD in biochemistry from the University of Arizona. After graduation, Schuster joined the Institute for Enzyme Research at the University of Wisconsin-Madison. He transitioned to academia with professorships at the University of Nebraska-Lincoln and the University of Florida, followed by administrative roles at UF as the Interim Assistant Vice President for Research and Graduate Education and Director of the Biotechnology Program"



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Conference Theme: Realization of SDGs under current scenario