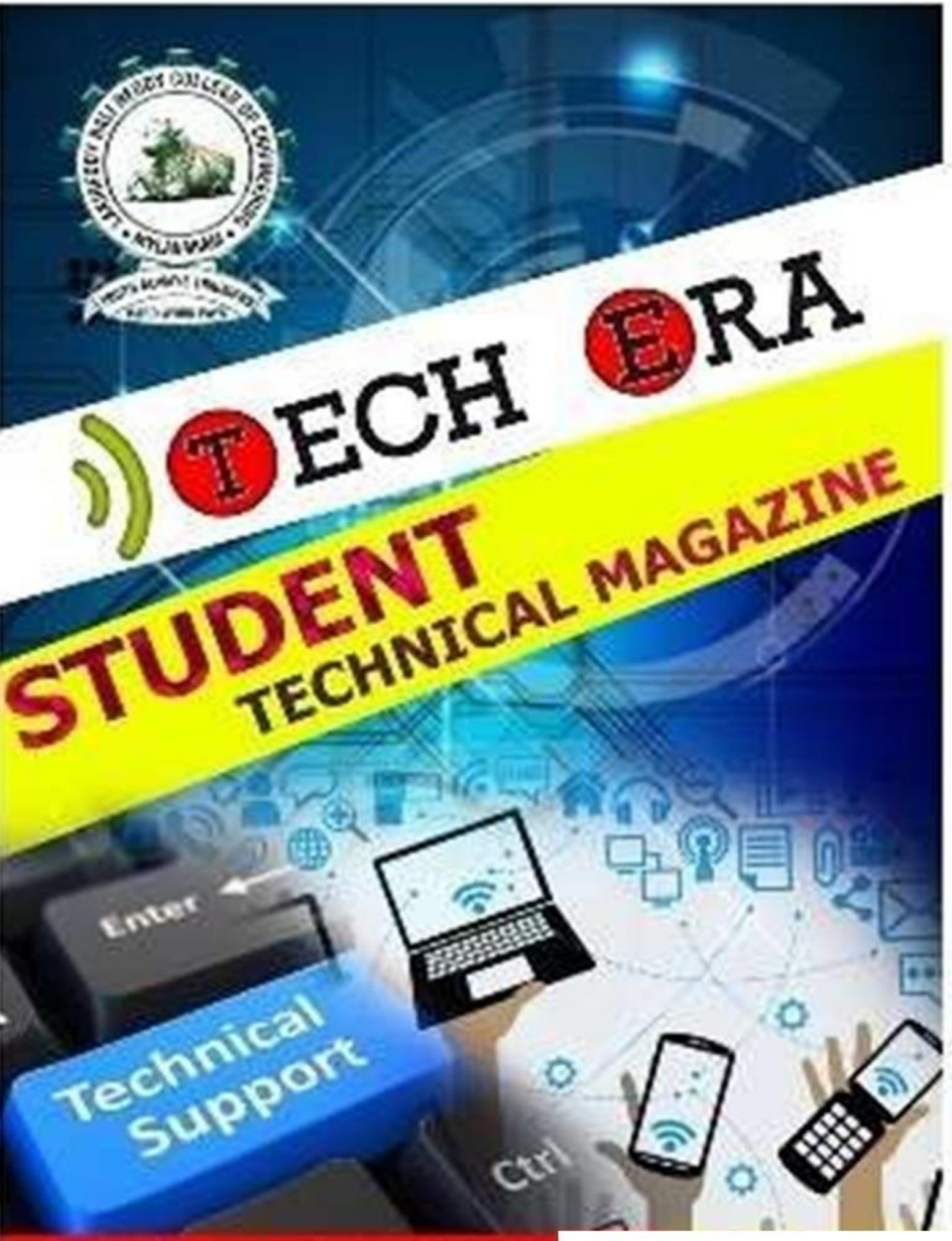


TECH ERA

STUDENT TECHNICAL MAGAZINE

DEPARTMENT OF IT (LBRCE)

VOLUME – VIII

2022 - 2023, ISSUE – 1

FORE WORD

Department of Information Technology involves researching, designing, developing in current trends of computing systems. It gave me great satisfaction to know that department has come up with its own magazine, "Tech- Era". The way they presented it was unique, very creative and hope it will serve as a motivational and technological source for the students to exhibit their inherent talents and improve their skills. I would like to express my appreciation to whole team members of Tech-Era including faculty coordinators who really made it possible.

Dr. K. APPA RAO
PRINCIPAL

Congratulate the department of IT, LBRCE for bringing out the prestigious bi-annual magazine, Tech-Era. I am sure that the magazine will provide a platform for students and faculty members to expand their technical knowledge and sharpen their hidden literary talent and also strengthen all round development of the students. My congratulations to the editorial board who took the responsibility for the arduous task Dr. B. Srinivasa Rao most effectively.

Dr. B. Srinivasa Rao
Professor & HOD

DEPARTMENT OF INFORMATION TECHNOLOGY

VISION AND MISSION

DEPARTMENT VISION

To emerge as one of the most preferred departments for the budding engineers, aspiring to be successful IT professionals

DEPARTMENT MISSION

DM1: To impart quality education with a well-designed curriculum, consistent with industry requirements, that equips the student to face the career challenges.

DM2.: To extend the student's learning beyond the curriculum, through workshops on cutting edge technologies.

DM3: To strengthen creativity and team spirit of the students by providing a conducive environment, preparing them to face the challenges posed by the IT industry.

DM4: To develop life-long learning, ethics, moral values and spirit of service so as to contribute to society through technology.

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

Graduates of Information Technology programme will be:

PEO 1: Pursue a successful career in the area of Information Technology or its allied fields.

PEO2: Exhibit sound knowledge in the fundamentals of Information Technology and apply practical Experience with programming techniques to solve real world problems.

PEO3: Demonstrate self-learning, life-long learning and work in teams on multidisciplinary projects.

PEO4: Understand the professional code of ethics and demonstrate ethical behavior, effective Communication and team work and leadership skills in their job

PROGRAM OUTCOMES (POs):

Graduates of Information Technology programme will have the ability to:

1. **Engineering knowledge**: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2. **Problem analysis**: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
3. **Design/development of solutions**: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
4. **Conduct investigations of complex problems**: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
5. **Modern tool usage**: Create, select, and apply appropriate techniques, resources, and modem engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
6. **The engineer and society**: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
7. **Environment and sustainability**: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate

the knowledge of, and need for

sustainable development. Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

8. **Ethics**: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9. **Individual and team work**: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings
10. **Communication**: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
11. **Project management and finance**: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
12. **Life-long learning**: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

PROGRAM SPECIFIC OUTCOMES (PSOs):

Graduate of the Information Technology will have the ability to

PSO1: Organize, Analyze and Interpret the data to extract meaningful conclusions.

PSO2: Design, Implement and evaluate a computer-based system to meet desired needs.

PSO3: Develop IT application services with the help of different current engineering tools.

About the Department

The department of Information Technology was established in the year 1999 with an intake of 40 seats in UG program. Student intake is increased from 40 to 60 in

the year of 2001, 120 students in the year 2019. It is the one of the most emerging programmes in LBRCE. As IT plays a remarkable role in almost all sectors, due to this the need of Information Technology Engineers increased who could gain knowledge in recent technologies. Our department is intended to train the students in elementary courses and cutting-edge technologies like Cloud Computing, Android application, Big data, Digital marketing, Social networking and Digital communication for solving many social and business problems.

The department strives to be a centre for excellence, innovation and research with dedicated faculty, highly motivated students, state-of-the-art facilities and an innovative teaching-learning environment. The department was accredited by the National Board of Accreditation (NBA) for 3 years i.e 2008 and 2019 (Under Tier-I), valid up to Academic Year: 2021-22. The department has consistently demonstrated its potential for excellent research through sponsored research projects, consultancy work, high-quality scholarly publications, text books, open-source software and other professional contributions. Several research and consultancy projects are also underway as part of various MoUs with reputed industry and academic organizations. Our students have consistently achieved 100% placements and have demonstrated a high level of success in pursuing post graduates at top universities of the world as per QS World University Rankings, like Massachusetts Institute of Technology, Carnegie Mellon University, Yale, Columbia, Purdue and in the IITs & IIMs.

Our future Software Engineers, Entrepreneurs, and Researchers are encouraged with inventive approach. We have an excellent infrastructure and advanced labs to expedite our students. The department facilitates innovative practices such as student internships, mini and major projects to meet the requirements of employment, teaching-learning process and entrepreneurship. To upgrade the knowledge of students, department offers many tools and Software applications. The LBRCE-CSI students' chapter has been actively organizing events like Technical Seminars, Workshops and Guest lecturers.

Articles Published in Reputed Journals & Conference by the Faculty of Information Technology

Reliability-driven time series data analysis in multiple-level deep Learning methods utilizing soft computing methods, G.N. Basavaraj, **K. Lavanya**, Y Sowmya Reddy, B. Srinivasa Rao, Measurement: Sensors,ISSN: 2665-9174, https://www.sciencedirect.com/science/article/pii/S2665917422001350

This paper introduces a novel method for mining data & information retrieval using series data for the duration. A multi-resolution S transformis viewed as a stage-adjusted transform of wavelet/a parameter window low period. Fourier-transform is used to recover significant characteristics from nonstationary duration series data with electricity-network disruptions. In pattern classification of disturbance waveform information, and incorporated Learning Vector Quantization neural-network & different feed-forward neural-network designs were employed afterwardextending required characteristics from the period of series-data.A fuzzy Multilayer perceptron accepts other connectionist systems and therefore is utilized in the final phase of encoding information inside the linking weights to produce fuzzy disturbance rules pattern inference. With energy signal time series data, a pattern classification performance of 99% was attained. Utilizing the new measurement processes, the data-driven information retrieval was displayed. A method proposed in this research is generically used to mine for information similarities in either duration of the series data pattern.

K. Lavanya,

A Hybrid Classification of Imbalanced Hyper spectral Images Using ADASYN and Enhanced Deep Subsampled Multi-Grained Cascaded Forest, Debaleena Datta, Pradeep Kumar Mallick, **Annapareddy VN Reddy**, Mazin Abed Mohammed, Mustafa Musa Jaber, Abed Saif Alghawli, Mohammed AA Al-qaness,Remote Sensing mdpi journal, ISSN:2072-4292, https://www.mdpi.com/2072-4292/14/19/4853/

Hyperspectral image (HSI) analysis generally suffers from issues such as high dimensionality, imbalanced sample sets for different classes, and the choice of classifiers for artificially balanced datasets. The existing conventional data imbalance removal techniques and forest classifiers lack a more efficient approach to dealing with the aforementioned issues. In this study, we propose a novel hybrid methodology ADASYN-enhanced subsampled multi-grained cascade forest (ADA-Es-gcForest) which comprises four folds: First, we extracted the most discriminative global spectral features by reducing the vast dimensions, i.e., the redundant bands using principal component analysis (PCA). Second, we applied the subsampling-based adaptive synthetic minority oversampling method (ADASYN) to augment and balance the dataset. Third, we used the subsampled multi-grained scanning (Mg-sc) to extract the minute local spatial–spectral features by adaptively creating windows of various sizes. Here, we used two different

forests—a random forest (RF) and a complete random forest (CRF)—to generate the input joint-feature vectors of different dimensions. Finally, for classification, we used the enhanced deep cascaded forest (CF) that improvised in the dimension reduction of the feature vectors and increased the connectivity of the information exchange between the forests at the different levels, which elevated the classifier model's accuracy in predicting the exact class labels. Furthermore, the experiments were accomplished by collecting the three most appropriate, publicly available his landcover datasets—the Indian Pines (IP), Salinas Valley (SV), and Pavia University (PU). The proposed method achieved 91.47%, 98.76%, and 94.19% average accuracy scores for IP, SV, and PU datasets. The validity of the proposed methodology was testified against the contemporary state-of-the-art eminent tree-based ensembled methods, namely, RF, rotation forest (RoF), bagging, AdaBoost, extreme gradient boost, and deep multi-grained cascade forest (DgcForest), by simulating it numerically. Our proposed model achieved correspondingly higher accuracies than those classifiers taken for comparison for all the HS datasets

Ananapareddy V. N. Reddy

Integrated Design of Optimized Weighted Deep Feature Fusion Strategies for Skin Lesion Image Classification, Niharika Mohanty , Manaswini Pradhan , **Annapareddy V. N. Reddy** , Sachin Kumar ,Ahmed Alkhayyat Measurement: Sensors Mdpi journal, ISSN: 2072-6694,https://www.mdpi.com/2072-6694/14/22/5716/

This study mainly focuses on pre-processing the HAM10000 and BCN20000 skin lesion datasets to select important features that will drive for proper skin cancer classification. In this work, three feature fusion strategies have been proposed by utilizing three pre-trained Convolutional Neural Network (CNN) models, namely VGG16, EfficientNet B0, and ResNet50 to select the important features based on the weights of the features and are coined as Adaptive Weighted Feature Set (AWFS). Then, two other strategies, Model-based Optimized Weighted Feature Set (MOWFS) and Feature-based Optimized Weighted Feature Set (FOWFS), are proposed by optimally and adaptively choosing the weights using a meta-heuristic artificial jellyfish (AJS) algorithm. The MOWFS-AJS is a model-specific approach whereas the FOWFS-AJS is a feature-specific approach for optimizing the weights chosen for obtaining optimal feature sets. The performances of those three proposed feature selection strategies are evaluated using Decision Tree (DT), Naïve Bayesian (NB), Multi-Layer Perceptron (MLP), and Support Vector Machine (SVM) classifiers and the performance are measured through accuracy, precision, sensitivity, and F1-score. Additionally, the area under the receiver operating characteristics curves (AUC-ROC) is plotted and it is observed that FOWFS-AJS shows the best accuracy performance based on the SVM with 94.05% and 94.90%, respectively, for HAM 10000 and BCN 20000 datasets. Finally, the experimental results are also analyzed using a non-parametric Friedman statistical test and the computational times are recorded; the results show that, out of those three proposed feature selection strategies, the FOWFS-AJS performs very well because its quick converging nature is inculcated with the help of AJS.

Ananapareddy V. N. Reddy

An efficient brain tumor classification using MRI images with hybrid deep intelligence model, Annapareddy VN Reddy, Pradeep Kumar Mallick, B Srinivasa Rao, Phaneendra Kanakamedala, The

Imaging Science Journal(Taylor & Francis), ISSN:1368-2199, An efficient brain tumor classification using MRI images with hybrid deep intelligence model: The Imaging Science Journal: Vol 0, No 0 (tandfonline.com)

The area of the brain affected by a brain tumour can be identified using the tumour's shape, size, location, and border. This study seeks to develop a novel system of classification for brain tumours through pre-processing, segmentation, feature extraction, and tumour classification. An improved median filter will be applied to the input image in this initial phase to improve it. In this step, the image is segmented using a U-net model. Then, characteristics based on the Median Binary Pattern (MBP), the loop, the modified Local Gabor Directional Pattern (LGDiP), and the tumour size are retrieved. A hybrid model that fuses DBN and Bi-LSTM is presented to classify cancers. The optimal weights for both classifiers will be tuned during training to improve the classification performance. For this, BMEBEO (Blue Monkey Extended Bald Eagle Optimization) is proposed, which is a hybrid optimization technique. The suggested model obtains the maximum F-measure of 96.16%%.

Ananapareddy V. N. Reddy

An empirical hybridized Siamese network using hypercube natural aggregation algorithm for handling imbalance data learning, Subhashree Rout, Pradeep Kumar Mallick, **Annapareddy VN Reddy**, Meshal Alharbi, Ahmed Alkhayyat, Expert Systems Journal, ISSN:1468-0394, An empirical hybridized Siamese network using hypercube natural aggregation algorithm for handling imbalance data learning - Rout - Expert Systems - Wiley Online Library

Dealing with imbalanced data is a common challenge in machine learning, where one class has significantly fewer examples than another. Successfully addressing this challenge requires careful consideration of the data, algorithm, and evaluation metrics to ensure that the model accurately predicts the minority class. In this study, we present a hybrid approach called Siamese-HYNAA, which combines a Siamese network and a population-based optimizer hypercube natural aggregation algorithm (HYNAA) to generate candidate solutions for augmenting the minority class. We collected 10 imbalanced datasets ranging from 1.81 to 8.78 imbalanced ratios and built solution pairs based on correctly predicted candidate solutions using support vector machine (SVM). We then fed these solutions to the Siamese network, which employs a one-shot learning approach to improve predictions with fewer candidate solutions. However, we found that SVM predicted only a small number of minority class samples accurately, prompting us to optimize the number of candidate solution pairs using HYNAA to generate more synthetic samples for the Siamese network. We evaluated our proposed strategy against basic SMOTE and our previous work, SMOTE-PSOEV, using various performance measures, including ROC-AUC learning curves, sensitivity, specificity, accuracy, Characteristic stability index, balanced accuracy, F1-score, informedness, markedness, and execution time. Our results indicate that Siamese-HYNAA generates promising results for imbalanced data.

Ananapareddy V. N. Reddy

Prediction of chronic kidney disease from patient record using ensemble ranking SVM, Tatireddy Subba Reddy, **V. V. Krishna Reddy**, R. Vijaya Kumar Reddy, Chandra Sekhar Kolli, V. Sitharamulu & Majjaru Chandrababu, The Imaging Science Journal(Taylor & Francis), ISSN:1368-2199, SHBO-based U-Net for image segmentation and FSHBO-enabled DBN for classification using hyperspectral image: The Imaging Science Journal: Vol 0, No 0 (tandfonline.com)

Hyper spectral imaging (HSI) is an advanced and fascinating remote sensing method in various domains. Every sample in HS remote sensing images possesses high-size features and has a massive amount of spatial and spectral data that enhances the complexity of feature selection and mining. Also, it improves the interpretational complications and thus surpasses the prediction accuracy of the system. To counterpart such issues, this article introduces an innovative system for HSI categorization wielding introduced Fractional Snake Honey Badger Optimization (FSHBO). Here, image segmentation is done through U-Net, which is trained by Snake Honey Badger Optimization (SHBO). The Deep Belief Network (DBN) is employed for HSI classification that outputs the pixel-wise classified result and this DBN is efficiently tuned using the proposed FSHBO. It is recorded that the proposed FSHBO-DBN has outperformed diverse classical models in terms of accuracy of 0.907, sensitivity of 0.914, and specificity of 0.904.

V. V. Krishna Reddy

A Tailored Particle Swarm and Egyptian Vulture Optimization-Based Synthetic Minority-Oversampling Technique for Class Imbalance Problem, Subhashree Rout , Pradeep Kumar Mallick , **Annapareddy V. N. Reddy** and Sachin Kumar, Information Journal (MDPI), ISSN: 2078-2489, https://www.mdpi.com/2078-2489/13/8/386

Class imbalance is one of the significant challenges in classification problems. The uneven distribution of data samples in different classes may occur due to human error, improper/unguided collection of data samples, etc. The uneven distribution of class samples among classes may affect the classification accuracy of the developed model. The main motivation behind this study is the design and development of methodologies for handling class imbalance problems. In this study, a new variant of the synthetic minority oversampling technique (SMOTE) has been proposed with the hybridization of particle swarm optimization (PSO) and Egyptian vulture (EV). The proposed method has been termed SMOTE-PSOEV in this study. The proposed method generates an optimized set of synthetic samples from traditional SMOTE and augments the five datasets for verification and validation. The SMOTE-PSOEV is then compared with existing SMOTE variants, i.e., Tomek Link, Borderline SMOTE1, Borderline SMOTE2, Distance SMOTE, and ADASYN. After data augmentation to the minority classes, the performance of SMOTE-PSOEV has been evaluated using support vector machine (SVM), Naïve Bayes (NB), and *k*-nearest-neighbor (*k*-NN) classifiers. The results illustrate that the proposed models achieved higher accuracy than existing SMOTE variants.

Annapareddy V. N. Reddy

Chronic Kidney Disease Prediction Using ML-Based Neuro-Fuzzy Model, S Phani Praveen, Veerapaneni Esther Jyothi, Chokka Anuradha, **K VenuGopal**, Vahiduddin Shariff, and S Sindhura, International Journal of Image and Graphics, ISSN :0219-4678, https://www.worldscientific.com/doi/10.1142/S0219467823400132

Nowadays, in most countries, the most dangerous and life threatening infection is Chronic Kidney Disease (CKD). A progressive malfunctioning of the kidneys and less effectiveness of the kidney are considered CKD. CKD can be a life threatening disease if it continues for longer period of time. Prediction of chronic disease in early stage is very crucial so that sustainable care of the patient is taken to prevent menacing situations. Most of the developing countries are being affected by this deadly disease and treatment applied for this disease is also very expensive, here in this paper, a Machine Learning (ML)-positioned approach called Neuro-Fuzzy model is used for prediction belonging to CKD. Based on the image processing technique, fibrosis proportions are detected in the kidney tissues. It also builds a system for identifying and detection of CKD at an early stage. Neuro-Fuzzy model is based on ML which can detect risk of CKD patients. Compared with other conventional methods such as Support Vector Machine (SVM) and K-Nearest Neighbor (KNN), the proposed method of this paper — ML-based Neuro-Fuzzy logic method — obtained 97% accuracy in CKD prediction. This method can be evaluated based on various parameters such as Precision, Accuracy, Recall and F1-Score in CKD prediction. From the results, the patients having high risk of chronic disease can be predicted.

K Venu Gopal

On optimization efficiency of scalability and availability of cloud-based software services using scale rate limiting algorithm, **Annapareddy V N Reddy** , A. Arun Kumar , Nookala Venu , R. Vijaya Kumar Reddy, Measurement: Sensors,ISSN: 2665-9174, https://www.sciencedirect.com/science/article/pii/S2665917422001350

This paper introduces a novel method for mining data & information retrieval using series data for the duration. A multi-resolution S transformis viewed as a stage-adjusted transform of wavelet/a parameter window low period. Fourier-transform is used to recover significant characteristics from nonstationary duration series data with electricity-network disruptions. In pattern classification of disturbance waveform information, and incorporated Learning Vector Quantization neural-network & different feed-forward neural-network designs were employed afterwardextending required characteristics from the period of series-data.A fuzzy Multilayer perceptron accepts other connectionist systems and therefore is utilized in the final phase of encoding information inside the linking weights to produce fuzzy disturbance rules pattern inference. With energy signal time series data, a pattern classification performance of 99% was attained. Utilizing the new measurement processes, the data-driven information retrieval was displayed. A method proposed in this research is generically used to mine for information similarities in either duration of the series data pattern..

Annapareddy V N Reddy

Identification of Nutrient Deficiency in RiceLeaves using DenseNet-121; Dr. B. Srinivasa Rao,Dr. R. Vijaya Kumar Reddy,Dara Manogna,Kotha Akhil,Dasari Divya Sree**,** Proceedings of the International Conference on Edge Computing and Applications (ICECAA 2022), Conference Location: Tamilnadu, India ISBN : 978-1-6654-8232-5**,** **https://ieeexplore.ieee.org/document/9936191/metrics#metrics**

India is renowned for rice farming. Rice as a most important crop has a huge bang on people's health since many cultivate it for a living, it provides jobs, and many small industries are dependent on its cultivation. There is a risk of significant losses due to various diseases and pets that can affect this planting. With the help of modern science and technology a number of research projects and methods are proposed to improve rice yields. In the plant nutrient system, leaf uniqueness varies according to potassium (K) phosphorus (P), and nitrogen (N) dietary pressures. Here we imported the dataset and performed data augmentation to enhance the mass of dataset and to obtain more accuracy. Then we applied DenseNet-121 which is one of the DenseNet group of models designed to perform image classification. It is then evaluated with Adam, RMSprop, Gradient descent optimizers which has given 95.40%, 98.49%, 93.50% of accuracy. This entire approach is done to identify the type of fertilizer that should be used in order to increase the yield of crop.

Dr. B. Srinivasa Rao

Predictive Analysis of COVID-19 Data Using Two-Step Quantile Regression Method, K. Lavanya, G. V. Vijay Suresh & Anu Priya Koneru, Emerging Technologies in Data Mining and Information Security, Visva-Bharati University, Santiniketan, West Bengal, India, , ISBN: 978-981-19-4051-4**,** **https://link.springer.com/chapter/10.1007/978-981-19-4052-1_69**

In the year 2019, research community began with new challenge called novel coronavirus disease (COVID-19) and has opened up new challenges for the research community. From the report of the World Health Organization (WHO), the new virus COVID-2019 (World Health Organization (2020) Coronavirus disease 2019 (COVID-19): situation report, p 67) causes dangerous illness to the concerned person, and it spread to other peoples with huge rate through contact. Such kind of pandemic analysis needs efficient methods to predict data and also helped further to analyze such epidemic risks. These kinds of analyses are used to handle and control the epidemic kind of diseases. Regression analysis is kind of ML methods and is worked well to analyze such kind of epidemic data. First, the data are collected from the website (i.e., https://prsindia.org/). Next, we applied various regression techniques like linear, multi-linear and quantile regression for COVID-19 data for the prediction of cases. Further extended work to derive penalized quantile results using lasso. The results shows that the two-step quantile regression (TSQR) has been shown to be a better predictive method for predicting confirmed cases compared to linear and multi-linear regressions in terms of MSE and R-Score parameters

K. Lavanya

Microarray Data Classification Using Feature Selection and Regularized Methods with Sampling Methods, **Saddi Jyothi,** Y. Sowmya Reddy & K. Lavanya , International Conference on Ubiquitous Computing and Intelligent Information Systems, Smart Innovation, Systems and Technologies, vol 302. Springer,Singapore,ISBN:978-981-19-4052-1**,** https://link.springer.com/chapter/10.1007/978-981-19-2541-2_27

In recent studies of medical field especially, it is essential to assess the expression levels of genes using the microarray technology. Most of the medical diseases like breast cancer, lung cancer, and recent corona are estimated using the gene expressions. The study in this paper focused on performing both classification and feature selection on different microarray data. The gene expression data is high dimensional and extraction of optimal genes in microarray data is challenging task. The feature selection methods Recursive Feature Elimination (RFE), Relief, LASSO (Least Absolute Shrinkage And Selection Operator) and Ridge were initially applied to extract optimal genes in microarray data. Later, applied a good number of multi classification methods which includes K-Nearest Neighbors (KNN), Support Vector Machines (SVM), Multilayer Perceptron Networks (MLP), Random Forest (RF) and Logistic Regression (LR). But the combination of mentioned feature selection and classifications required high computation. However, resampling method (i.e., SMOTE = Synthetic Minority Oversampling Technique) prior to the feature selection which enhances the microarray data analysis in classification respectively. The resampling method, with combination of RFE and LASSO feature selection using SVM and LR classification outperforms compared to other methods.

Saddi Jyothi

Two-level Filtering method with Extended Lasso and Information Gain in Microarray Data Analysis, Sarvani **Anandarao,** Dr.Madhavi Reddy Y, Dr. Lavanya Kampa, 2022 International Conference on Inventive Computation Technologies (ICICT), Conference Location: Nepal,ISBN: 978-1-6654-0837-0, https://ieeexplore.ieee.org/document/9850956/authors#authors

Most growing real-time applications operate with high-dimensional data and require appropriate feature selection and prediction analysis technique. The regularization approach is one of the most widely used strategies for genomic data processing. The selection of features in high-dimensional data with substantially linked variables is a critical challenge. As a result, in this work, a unique approach is proposed for feature selection, wherein TLFM (Two-Level Filtering for Microarray Data), is identified for achieving an optimal gene data. Using the Information Gain (IG), each gene was prioritized from the early stages based on its value for classification. At the first level, a subset of candidate genes is created. Later, the redundant genes are filtered and the retained information genes from the subset (i.e., candidate genes) obtained from the previous step is done by using the Extended Lasso (EL) method. The real-time datasets have tested the proposed method against the standard methods. The results of the proposed study proven that the proposed method has produced better classification results with fewer genes.

Sarvani Anandarao

DETAILS OF PATENTS:

A Computational System That Computes Network Condition In Cloud Based Software As A Service (SaaS)	Lakireddy Bali Reddy College of Engineering (Autonomous) **Dr. Annapareddy V. N. Reddy, Dr. Kampa. Lavanya, Dr. B. Srinivasa Rao,Dr. E. V. Krishna Rao Phaneendra Kanakamedala**	202241075345	26/12/2022	30/12/2022
Reliability-Driven Time Series Data Analysis in Multiple-Level Deep Learning Method	**Lakireddy Bali Reddy College of Engineering (Autonomous) Dr. Kampa. Lavanya, Dr.B. Srinivasa Rao, Dr.E.V.KrishnaRao, Sarvani Anandarao, Gollamandala Vijaya Suresh, Dr.Annapareddy V. N. Reddy**	202241075344	21/12/2022	30/12/2022

Details of Sponsored Research

No. of Research Projects: 01

S.No.	Faculty with Designation	Title of the Proposal	Funding Agency-Scheme	Amount Sanctioned & Date	Amount received in Rs.& Date	Duration & Status
1	Dr.K.Lavanya Associate Professor	An Early Detection of Diabetic retinopathy (DR) using AI and deep learning (DL) techniques for Rural community	Seed Money	1,10,000	1,10,000 11-07-2022	1 Year

LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING
(AUTONOMOUS)
L.B. REDDY NAGAR, MYLAVARAM – 521230. A.P. INDIA
Affiliated to JNTUK Kakinada & Approved by AICTE, New Delhi
Accredited By NAAC, Accredited By NBA Tier-I & Certified by ISO 9001:2015
DEPARTMENT OF INFORMATION TECHNOLOGY

CSI-LBRCE STUDENT BRANCH

Report on "Value Added Course on Web Technologies"

Type of Event: Workshop

Date/ Duration: 26-09-2022 to 01-10-2022 / 6 Days

Resource Person(s): Mr. Jagadeesh, Wipro Limited

Name of the Coordinator(s): Mr. Rajesh Reddy, IT Dept., LBRCE,
Mr. Vijay Kumar, IT Dept., LBRCE,
Mr. Deepak Raj, IT Dept., LBRCE

Target Audience: **II Year** B.Tech Students of IT.

Total no of Participants: **80**

Objective of the event:
The Department of Information Technology, LBRCE, has organized a value added course on Web Technologies such as HTML, CSS, Java Script and React Js, for a duration of 6 days i.e., from 26-09-2022 to 01-10-2022. The second students who have just completed their first year examinations are the target audience. The main objective of this event is to introduce these students to the concepts of web development and key technologies that are widely used in the software industries. The program was inaugurated by Dr. B Srinivasarao, HOD, Dept. of IT and Dr. S. Naganjaneyulu, Dept. of IT, LBRCE. The core objective of this workshop is to train the students to build websites of different kinds such as a person's portfolio, shopping website, etc. Since this is an introductory session on Web Technologies which are attended by mere second year students, advanced concepts such as adding high end functionality to the objects, integrating with a backend etc., are avoided.

Schedule of the event: Day wise schedule was given below and each and every day the related concepts are applied through conducting practical implementation sessions.

Day-1: Basic to Intermediate HTML 5
- Detailed discussion on how a webpage is loaded on to a browser
- Basics and some intermediate HTML Tags

Day-2: CSS and Selectors
- Styling a HTML document
- Displaying of HTML objects
- Different categories of selectors and their uses
- CSS Colors, Background, Margins, Padding, Fonts, Tables, Navigation Bars

Day-3: CSS Layouts - Grid, Flex and Media Queries
- Different kinds of CSS Layouts,
- Customizing parts of the layouts such as Header, Footer, Main Content, Menus, Navigation bars, etc.

Head of the Department
Department of Information Technology
Lakireddy Bali Reddy College of Engg.
MYLAVARAM - 521 230, Krishna Dt, A.P. India.

Day-4: Basics of Javascript

- Demonstration of adding functionality to HTML objects by changing the assigned values.
- Concepts related programming such as variables, constants, operators, datatypes, strings, arrays, etc are introduced.
- Conditional statements and looping statements are taught.

Day-5: Javascript ES6 and Mini Project

- New features of JS ES6 have been discussed.
- A mini project was assigned to the students in which most of the topics discussed in the previous sessions are needed to be applied.

Day-6: Introduction to React JS

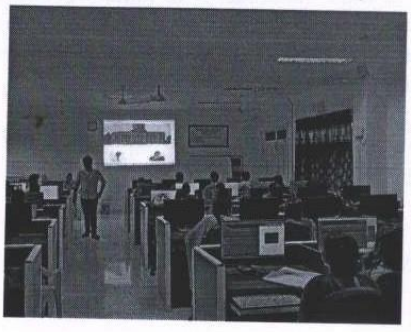
- **A brief introduction to React JS was presented.**

Feedback/ suggestions

1. Successfully learnt about the basics of Web Pages. Developing web pages of their own using HTML, CSS and JS.

2. The number of practice hours could be more.

Photographs and Press clippings:



Glimpse of the Event

ఆదివారం 02 అక్టోబర్ 2022

వెబ్ టెక్నాలజీపై ముగుసిన వర్క్‌షాప్

మైలవరం: అక్టోంబర్ 1 (వార్తవాళ) స్థానిక లకిరెడ్డి బాలి రెడ్డి ఇంజనీరింగ్ కళాశాలలో ఇన్ఫర్మేషన్ టెక్నాలజీ ద్వితీయ సంవత్సరం చదువుతున్న విద్యార్థులకు గత వారం రోజులుగా నిర్వహిస్తున్న వెబ్ డెవలప్ మెంట్ వర్క్ షాప్ శనివారం ముగిసినట్లు కళాశాల ప్రిన్సిపల్ డా.కె.అప్పారావు వెల్లడించారు. ఈ వర్క్‌షాప్‌లో విద్యార్థి లకు వెబ్‌కి సంబంధించిన వెబ్‌సైట్‌ని ఎలా డిజైన్ చేయాలి దానికి అనుగుణం గా కావాల్సిన సాంకేతికతలైన హెచ్ఎం టిఎల్, సిఎస్ఎస్, జెఎస్ రియాక్ట్ జెఎస్ లను ట్రైనర్ జగదీష్ (సాఫ్ట్ వేర్ విప్రో టెక్నాలజీస్ వారు) శిక్షణ ఇచ్చారని ప్రిన్సిపాల్ తెలియజేశారు. అలాగే వారి పోర్ట్ పోలియో,వెబ్‌సైట్‌లు,బ్లాగ్‌లు ను పరిశీలించడం జరిగిందని పేర్కొన్నారు. అనంతరం జరిగిన ప్రశంసా సమావేశం లో విభాగ అధిపతి డా.బి.శ్రీనివాసరావు మట్లాడుతూ కోవిడ్-19 క్లిష్ట పరిస్థితుల్లో వెబ్ డిజిటల్ కమ్యూనికేషన్ అండ్ నెట్వర్కింగ్ ప్రాముఖ్యత గురించి అందరికి వివరించారన్నారు. ఈ కార్యక్రమానికి విజయ కుమార్,యమ్. రాజేష్ రెడ్డి, బి.దీపక్ రాజ్ లు ప్రోగ్రాం కో ఆర్డినేటర్లుగా వ్యవహరించడం జరిగిందని ప్రిన్సిపాల్ అప్పారావు తెలియజేశారు.

Press News

13/10/2022

Head of the Department
Department of Information Technology
Lakireddy Bali Reddy College of Engg.
MYLAVARAM - 521 230, Krishna Dt, A.P, India.

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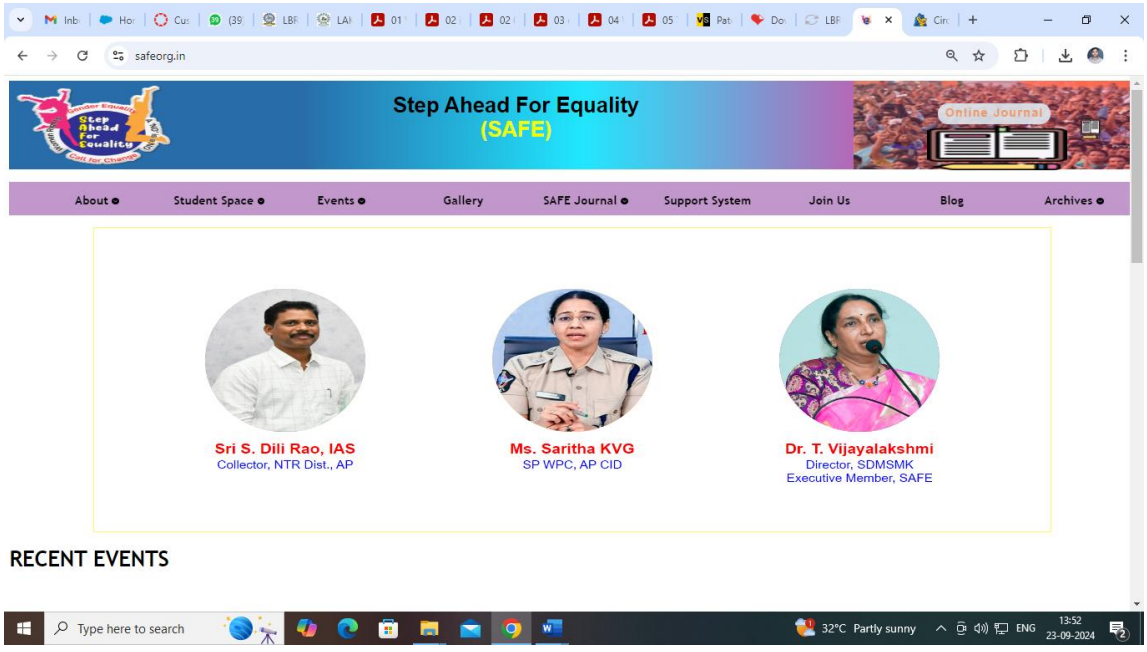
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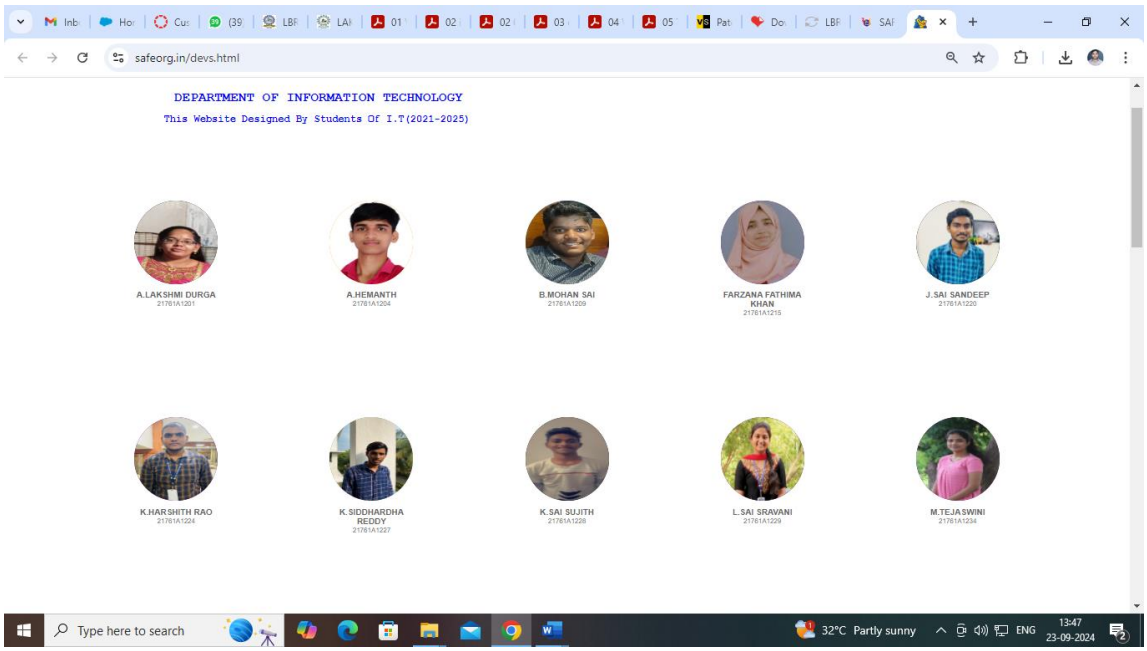
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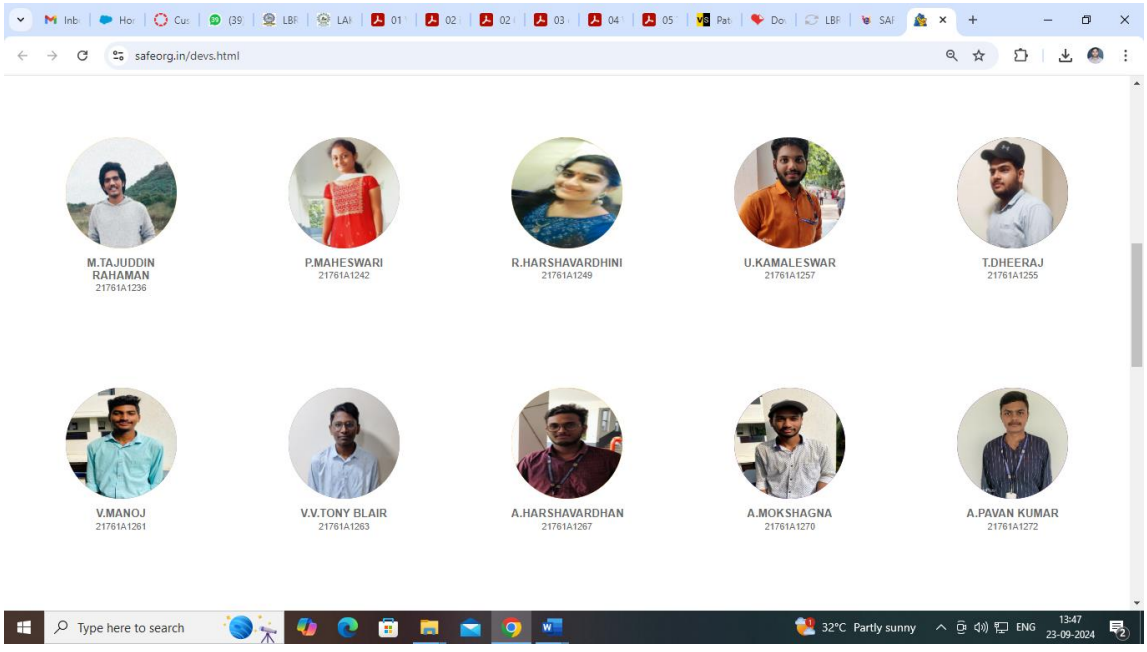
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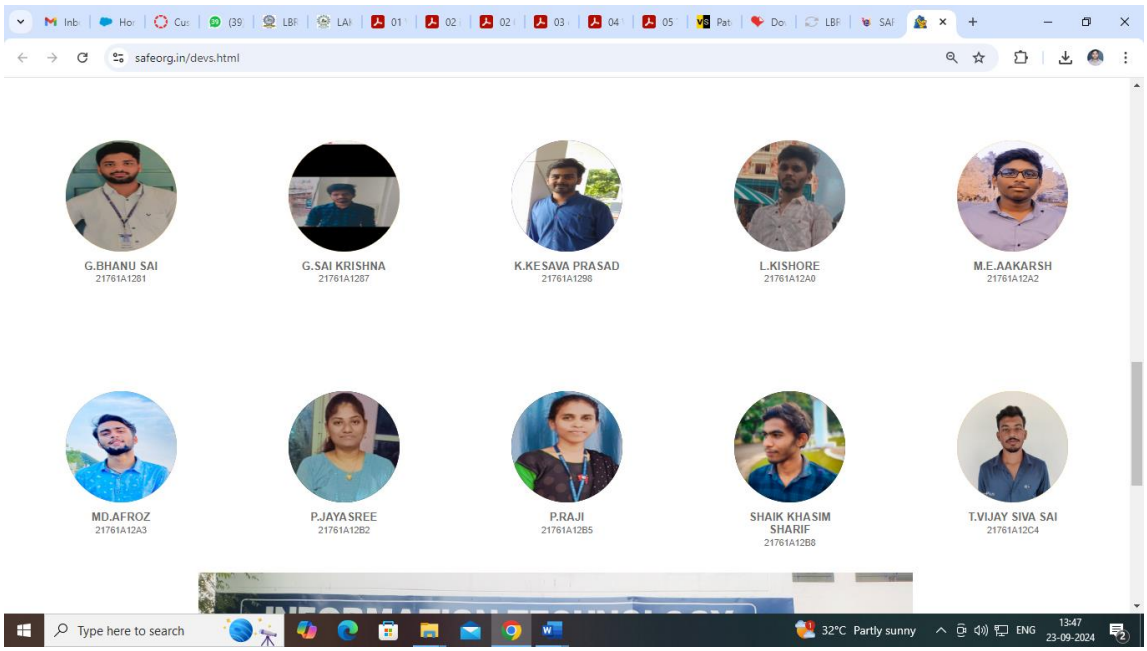
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