Activity Report (news bulletin) of IT Dept. for March 2024

1. Expert Lecture/Seminar/Courses Organized by Department during March 2024:

Dept. of Information Technology had organized a session on "Introduction to JavaScript" Mr. Yash Garudkar, Vinz Global, Software Engineer, Pune on 16th March 2024.

A session on "Introduction to JavaScript" Mr.Mr. Yash Garudkar

2. Papers Presented/Published in the Journal by Staff during March 2024:

Title of Paper: Multiclass Classification of Authentic and Forged   Images based on Deep Learning
Name of Conference: International Conference on Innovations in Cybersecurity and Data Science ICICDS-2024
Organizer:Reva University, Bengaluru, India
Dates: 15-16, March 2024,Bengaluru, India
Names of Authors: Prof. Rupali Bora

Abstract: - Digital manipulation of images is commonly done by the use of advanced tools and technologies. As these manipulations cannot be easily seen by naked eyes, it is very difficult to differentiate the original and forged images. Image splicing and copy-move manipulations are the most common techniques to generate such manipulated images called forged images. Image forgery can be detected and localized based on the most important features called a descriptor of an image. The manipulations can be identified by correlation among nearby pixels using various deep learning-based models. A Convolutional Neural Network is applied to identify the related discrepancies. The convolution operation produced the output feature map which is a meaningful information related to discrepancies. To detect copy-move and image splicing forgeries a deep-learning based method is proposed here. The images are classified into three classes. Forged images can be Copy-move or Spliced and third class is for Authentic images. CASIA_v2 dataset is used for training and testing purposes. The various performance parameters like accuracy, F1-score, precision, recall are computed and compared for three types of images. The obtained accuracy is 93.54% for this multi-class classification with maximum precision and F1-score of 95.69% and 96.30% respectively.

Keywords: Copy-move forgery, Image splicing, Convolutional Neural Network (CNN), Image forgery, Deep Learning

Title of Paper: Health Policy Implementation in Developing Nations: Challenges and Solutions.
Name of journal South Eastern European Journal of Public Health

ISSN Number: 2197-5248

Names of Authors: Prof. Pragati Pandit
Abstract: - Putting health plans into action in poor countries is hard for many reasons, which makes it harder to provide good healthcare to the people who live there. Policies are often hard to put into action

because of a lack of money, facilities, and skilled healthcare workers. Also, government uncertainty and corruption can make health projects less effective than they were meant to be. One major obstacle is the insufficient funding allocated to health programs, leading to inadequate facilities and a shortage of essential medical supplies. This financial constraint exacerbates the difficulty of attracting and retaining qualified healthcare professionals, perpetuating a cycle of suboptimal healthcare delivery.Infrastructure deficiencies, including poor road networks and limited access to remote areas, further compound implementation challenges. These obstacles impede the timely and equitable distribution of healthcare services, disproportionately affecting rural and marginalized communities.Political instability and corruption introduce an additional layer of complexity, compromising the integrity of health policy implementation. Unstable political environments often result in inconsistent policy frameworks, hindering long-term planning and sustainable healthcare improvements. Corruption erodes trust in the healthcare system, discouraging public participation and impeding the successful execution of health policies.To address these challenges, a multi-faceted approach is essential. Increased international collaboration and financial assistance can alleviate resource constraints, while targeted capacity-building initiatives can bolster the healthcare workforce. Improved infrastructure development, especially in rural areas, is crucial for ensuring widespread access to healthcare services. Additionally, fostering political stability and implementing anti-corruption measures are vital steps toward creating an enabling environment for successful health policy implementation in developing nations.

3. Papers Presented by Students during March 2024: **NIL**
4. Industrial Training/Workshop done by Staff   during March 2024:

Prof. Poonam Patil attended five days online FDP on "Cognitive Computing for Smart Applications" organized by Department of Artificial Intelligence and Data Science, Vishwakarma Institute of Technology, Pune from 18th to 22nd March, 2024.

5. Industrial Visit/Field visit organized by department for student during March 2024:

Dept. of Information Technology had organized visit for FY(IT) students under the Indian Knowledge System (IKS) subject to Gondeshwar Temple, Sinner, Nashik on 2nd March 2024. 94 students along with Prof. Shilpa Mene, Prof. Reena Johnson, Prof. Yogita Algat and Prof Nitin D Dhamale visited the temple.

A visit to Gondeshwar Temple ,Sinner, Nashik

6. Training and Placement Cell during March 2024: **NIL**
7. Books Purchased in Central Library during March 2024: **NIL**
8. Forthcoming event in the month   April and May 2024:-
9. Achievements:

HOD, IT