VISION

To develop world class IT professionals through quality education.

Mission of Department

To create Academic Excellence in the field of Information Technology through Education, Industry Interaction, Training and Innovation to improve quality of life of people.

We are committed to develop industry competent technocrats with life-long learning capabilities and moral values.

FROM HOD'S DESK

Dear Readers,

Firstly, let me welcome our First Year Students…They have chosen to be part of the IT Family and their numbers are really encouraging for the department. I also want to congratulate our faculty members for continuously working towards academic achievements and recognition in the form of awards, doctorate degrees, and of course helping the students continuously for their betterment.

Keeping in mind that to teach is to touch a life forever. We have tried to encompass academics, co-curricular activities, sports, and life-skills learning. We have had good interaction with our alumni and that is helping our students. We are seeing the results... Our first autonomy batch has got a good response from companies. More than 70% of our students are already placed in the first semester of the final year with good packages. I have a concern too: In many advanced and developing economies, companies have started laying-off their employees to sustain themselves in the markets. We will be hit by this scenario sooner or later…We need to remember one thing this is not the END…We hope that our student's journey with us will surely help them yield fruitful results and envisage our shared dreams and to dream a new.

All the very best my warriors…. As said by Albert Einstein, "A ship is always safe at the shore – but that is NOT what it is built for". So mark your presence in the outer world with our love and the learning you have had here… Wish you the BEST ahead…

- Dr. Madhuri Jawale
Professor and Head

FROM EDITOR'S DESK

Dear Readers,

It's my pleasure to launch this first edition for academic year 2022-23. I am thankful to all the students, faculty members, Head of Department, Dr. Madhuri Jawale, Our Director, Dr. A. G. Thakur, our Management and our proud alumni who have contributed and supported me to complete this edition.

I am very delighted to see the outcome of our autonomy batch. The curriculum came out to be a blend of future-oriented topics keeping in touch with the basics. Our Participation in various events and internships is getting counted. We are able to contribute a little to our own institution and sister institutions by creating software for everyday tasks. The efforts of our staff and students are paying off… Let us keep the zeal alive and work for a better tomorrow…

In the growing world of information flood, I must say "Pay attention to your ability to focus on a task. It is a skill that leads to success".

Best Luck!! See you in the next Edition.

Ms. Kanchan Patil,
Editor

NEWS AT A GLANCE

- Department of Information Technology had organized Induction Program for F.Y. B.Tech students on 7th November 2022 in IT Department. The main objective was to get the students aware about the department, faculty members, facilities available in the department

etc. Dr. Devyani Jadhav coordinated the event. In the beginning, Dr. Madhuri Jawale, Head, IT department welcomed and congratulated all the students for being a part of Sanjivani family. Later, all the faculty members introduced themselves and given the information regarding different bodies such as ITERA, CSI and portfolios such as SAP, Intership Opportunities, Oracle Academy, NSS, Industrial visits, Alumni network etc. After this discussions, students visited department and then main campus.

Some glimpses of the event

Under the same program, Industry Visit was planned for FY IT students at Rural Shores Pvt Ltd, Kopargaon on 8th November 2022. Total 65 Students of Department visited the Industry and 3 Faculty Members, Dr. Nikhil Patankar, Mr. Nitin Shelke and Mr. K. Dineshkumar accompanied the students. The major objective of Rural Shores is to give students the chance to work in the area of integrated IT and Business Process Outsourcing solutions. Mr. Vijay Pratap Singh gave the students a thorough presentation on the Job process and Client information. Most of Rural Shores' clients are HDFC Life, ICICI Prudential and Bajaj Finance.

- Department has organized the Parents Meet for S.Y., T.Y. and B.Tech classes on 17th October 2022 at 01.00 P.M. in MBA Hall. The main objectives were To develop and maintain good communication among the Parents and Faculty, To improve the performance of students in Academics as well as in Extra Curricular activities, To provide details about all different activities initiated by the department for overall development of students, To provide guidelines about the exam pattern in autonomous syllabus, To get the suggestion and feedback from parents about the development of their

"Any improvements made anywhere except the bottleneck are an illusion." -The Phoenix Project

wards. The Meeting is started with welcoming the Director and all Parents. Director Dr. A. G. Thakur along with Head of IT Dept. and Parents inaugurated the function with Saraswati Poojan.

Parent's Meet Inauguration

During the Meet, Dr. A. G. Thakur, Director Sanjivani COE Kopargaon has addressed the audience. In his speech, he has given details about Industry Institute Interaction initiatives taken by college. He has put lights on important activities like Sanjivani Thought Leaders, Sanjivani My Story Board, Sanjivani I-Connect etc. and also on MoUs signed with Celebal, Reveature and AI Automaton, Virtusa and their benefits along with how all students are being trained and benefited for their placement in future. Also, sir has appealed all parents to keep trust on their wards and allow them to do some challenging task which will help their wards to boost their own confidence and can interact with anyone. Sir also focused on all T& P activities.

Dr. M. A. Jawale, HOD has introduced the IT department and highlighted that the Department is accredited by NBA, New Delhi and NAAC A Grade accreditation. Dr. Jawale has given information about various activities that was held and currently going on in IT department like SAP Training Center, Red Hat Academy Center, Language Laboratory, Capsule Courses, NPTEL Certification Courses and Coursera Digital Library etc. and how these activities are beneficial to make students employable.

Many parents have appreciated the IT dept, Sanjivani COE Kopargaon about teaching learning process and different activities conducted for overall development of students. The event was concluded by Vote of thanks and every parent were met the mentors and subject teachers of their wards and discussed the progress of their ward. The event was coordinated by Dr. Devyani Jadhav and all staff of IT Department.

Some glimpses of the Parent Meet

Kopargaon, Maharashtra, India
WF2V+MV4, Sanjivaani Factory, Sanjivani Sugar Factory, Singnapur,
Kopargaon, Maharashtra 423603, India
Lat 19.901678°
Long 74.494659°
17/10/22 01:31 PM

- Department is always focusing on outcome based education. In the same line, as outcome of IoT laboratory, Department had organized an IoT based Project Exhibition on 3rd December 2022. For the exhibition 79 students from TY participated in groups. Honourable Shri. Amit Dada Kolhe, Managing Trust SGI, Mr. Vijay Naidu, Chief Technological Officer, Dr. A. G. Thakur, Director Sanjivani College of Engineering along with Dr. Madhuri Jawale, Head, Department of Information Technology inaugurated the event.

During the exhibition, students of TY IT demonstrated innovative projects like a Smart Water Irrigation system,

Smart Attendance using an RFID Card, Smart Dustbin, Smart Lab Using a Motion Sensor, Water Level and Water Flow Measurement for Water Tanks, Smart Blind Stick, Smart Gas Leakage Detection, Smart Speech to Text Conversion, etc. Mr. Aanad Barbind and Dr. Nikhil Patankar guided the students to provide working examples of how and where IoT may be applied in modern life. Mr. Rohit Nikam coordinated the event under the banner of the ITERA-Department Association.

Honourable Shri. Amit Dada Kolhe, Managing Trustee, SGI guiding the students.

The inauguration ceremony of **IOT based Smart Sprinkler Switching using Mobile App** for campus lawn was held on 26th January 2023.

"Our greatest weakness lies in giving up. The most certain way to succeed is always to try just one more time." - Thomas A. Edison

Some glimpses of the event

- As a part of 4 hours Skill Based Credit Course, Department has organized an Industry Training for all the students of TY. Mr. Milind Adpaiker, Connectwise, Canada was the expert for the training. Under this training students were divided into groups and given a problem definition to implement which will address the solution to the problems in the society. Students also learn the different concepts such as Overview of frontend-backend using reference technologies, devops, CI pipeline, github actions, Docker hub and CI/CD pipeline etc. Along with the theoretical knowledge, students applied the gained knowledge on their project implementation. Dr. Yogesh Deshmukh, Ms. Kanchan Patil, Mr. Chetan Bawankar, Ms. Megha Kurhe and Mr. Nilesh Shelake guided the students.

- Let us congratulate our students Kulkarni Surabhi Ketan, Kale Ashwini Dattatray, Game Arpita Balasaheb, Kurund Chaitali Balasaheb, Dhage Prashant Shivnath, Devhare Akash Bhagwan, Aher Siddharth Bhausaheb, Aware Bhushan Haribhau, Naikwade Vaishnavi Vinod, Dhorde Prithviraj Shivaji, Pranali Dilip Dhamale, Patil Harshal Pravin, Mali Anjali Kailas, Maind Rohit Vijay for successfully completing Global Certification in SAP ABAP which is valid worldwide. All the students are certified as **"SAP Certified Development Associate –**

ABAP with SAP NetWearer 7.50". Through this SAP program, our students **Mr. Soham Suryawanshi (2022 batch), Mr. Akash Deore (2022) placed in BOSCH, Banglore with package of 6.5LPA. Mr. Tejas Deshmukh (2023 batch) placed in TCS.** Mrs. Kanchan Patil is working as SAP Department Coordinator.

- Department has organized an interactive session on the topic **"How to prepare for being placed in SAP based company"** on 7th December 2022 at 07:00pm in online mode. Mr. Soham Suryawanshi, our alumni placed in BOSCH, Banglore guided final year students regarding preparation and gave some tips to crack the interview.

- Under the UiPath Academic Alliance recognize educational partnership with Sanjivani College of Engineering, Kopargaon 60 students from TY IT and 15 students from SY IT have successfully completed the RPA Developer Foundation course in this semester. Dr. Yogesh Deshmukh is coordinating the same.

- Department has conducted Eight Student Learning Assessment on various Frameworks under PARAKH by AICTE to assess and improve technical student's skills all over India. All FY, SY, TY students did the registrations of PARAKH by AICTE and completed the eight self-assessments. This will help the student's to build confidence and motivate them to make progress in personal and professional careers. Also to develop new learning programs that match with the student' interest and their skill sets.

- Our NSS team is always trying to work for society and organizes different activities. National Service Scheme unit of Sanjivani College of Engineering, Kopargaon organized the event of POSTER MAKING COMPITITION under the banner of Red Ribbon Club (RRC) on the occasion of WORLD AIDS DAY. Event was held on 18th November 2022, In the event 145+ students participated from Diploma, 11th, 12th, D Pharm, Degree, BBA, BCA etc.

On the occasion of NSS day, 24th September 2022 NSS unit visited AdarshGram PATODA. Patoda is famous for its uniqueness, cleanliness, & innovations. NSS unit of Sanjivani with 40 volunteers and 4 staff members participated.

Mahatma Gandhi & Lal Bahadur Shastri Jayanti was celebrated. On the occasion of same, A event "स्वातंत्र्याची वेशभूषा" was conducted. In the Event, 13 students came in different freedom fighters costume & given the speech on their role.

Dr. Nikhil Patankar is working as the departmental NSS coordinator.

CLASS TOPPERS

Class Toppers of July 2022 Exam

BEIT

Ms. Goraksha Akshada Pramod	: 9.73 SGPA (1st)
Ms. Sangale Poonam Dilip	: 9.73 SGPA (1st)
Ms. Kale Ashwini Dattatray	: 9.59 SGPA (2nd)
Mr. Cholake Pratik Tushar	: 9.45 SGPA (3rd)
Ms. Magar Shivani Vikram	: 9.45 SGPA (3rd)
Mr. Shaikh Parvej Anwar	: 9.45 SGPA (3rd)
Ms. Wakte Mayuri Anil	: 9.45 SGPA (3rd)
Ms. Turkane Vaishnavi Jalindar	: 9.45 SGPA (3rd)

TEIT

Ms. Abhale Sonali Prakash	: 8.63 SGPA (1st)
Ms. Shah Shivani Praful	: 8.63 SGPA (1st)
Ms. Naikwade Vaishnavi Vinod	: 8.53 SGPA (2nd)
Ms. Gujarathi Nandini Kumar	: 8.53 SGPA (2nd)
Mr. Jawale Aniket Shrikrishn	: 8.53 SGPA (2nd)
Ms. Kharat Nikita Ashok	: 8.37 SGPA (3rd)
Ms. Shirole Shital Rajendra	: 8.37 SGPA (3rd)

SEIT

Mr. Gunjal Tejas Gokul	: 9.18 SGPA (1st)
Ms. Aher Vaishnavi Sanjay	: 8.77 SGPA (2nd)
Ms. Rahane Shital Anna	: 8.68 SGPA (3rd)
Mr. Shelke Sanket Chandrabha	: 8.68 SGPA (3rd)

TRAINING & PLACEMENT NEWS

Congratulations to the following students for being placed in various companies with high salary package
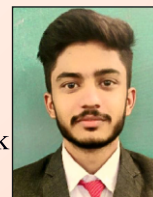

Ms. Kharat Nikita Ashok, Celebal Technologies

Ms. Shah Shivani Praful, Celebal Technologies

Mr. Sharma Shivam Dilip, Celebal Technologies

Mr. Jadhav Vishal Walmik Celebal Technologies

Mr. Daware Sanket Sanjay, Celebal Technologies

Mr. Saurabh Patil, Celebal Technologies

Mr. Ghogare Shubham Satish, Celebal Technologies

Mr. Kokane Rushikesh Bhausaheb, Celebal Technologies

Mr. Jawale Aniket Shrikrishna, Celebal Technologies

Mr. Zaware Rahul Raosaheb Celebal Technologies
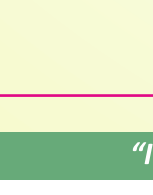
Mr. Lad Omkar Kailas Celebal Technologies

Mr. Natkar Dnyaneshwar Bapurao Celebal Technologies

Mr. Kumawat Shubham Anil Celebal Technologies
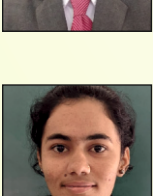
Ms.Nikita Kacharu Nikam Celebal Technologies
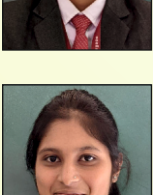
Mr. Patil Aniruddha Ajay Celebal Technologies
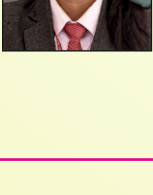
Ms.Abhale Sonali Prakash Celebal Technologies

Ms. Pote Shruti Sunil Celebal Technologies

Mr. Ajay Navnath Chavhan Celebal Technologies

Ms. Maheshwari Shivaji Shinde Celebal Technologies

Ms.Shital Rajendra Shirole Celebal Technologies

Ms. Vaishnavi Vinod Naikwade Celebal Technologies

Ms. Shrutika Shantaram Jadhav Celebal Technologies

Ms. Pawar Vaishnavi Sunil, Celebal Technologies

Ms. Valte Shreya Purushottam Celebal Technologies

Ms.Shubhangi Sampat Gunjal Celebal Technologies

Ms. Vaishnavi Satish Bhosale, Celebal Technologies
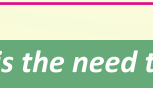
Ms. Gaytri Popat Labhade Celebal Technologies

Mr.Sayyam Anil Gangwal Colgate Palmolive

Ms.Sakshi Bhausaheb Gadhave Virtusa

Ms. Nandini Kumar Gujarathi, Colgate Palmolive

Ms. Shital Kailas Kale, Colgate Palmolive

Ms. Arpita Balasaheb Game Colgate Palmolive

Mr. Aher Siddharth Bhausaheb Netwin

Mr. Ranmale Saisagar Rajendra, iBrain
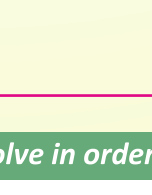
Mr. Momale Akash Shivaji, KPIT Technologies

Mr. Navale Sandip Babasaheb KPIT Technologies

Mr. Bendre Akshay Pandharinath KPIT Technologies

Mr. Aher Siddharth Bhausaheb, NTT Data

Mr. Sayyam Anil Gangwal
Deloitte

Mr. Rokade Tushar Ganpat
Celebal Technologies

Ms. Sanjana Satish Amale
Deloitte

Ms. Wable Sayali Sanjay
Deloitte

Ms. Pranali Dilip Dhamale
Deloitte

Mr. Sarthak Arjun Murtadak
Deloitte

Ms. Anjali Kailas Mali
Deloitte

Mr. Wankhedkar Gaurav
Devendra, Deloitte

Mr. Zahir Riyaj Pathan,
Deloitte

Mr. Bornar Kunal
Shahshikant, Deloitte

Mr. Dhage Prashant
Shivnath, TCS

Mr. Tanpure Pradyumna
Ajit,
Deloitte

Mr. Devhare Akash Bhagwan,
TCS

Mr. Gorhe Kaustubh
Amol, Ibrain

Mr. Shaikh Asad Sajid,
Celebal Technologies

RECENT DEVELOPMENT

We are glad to share that, Faculty members with students are developing projects and providing consultancy services for other departments, colleges and organizations.

- Mr. Kalpanath Gayke along with his guide Mrs. Kanchan Patil has developed Website for Sanivani Junior College, Kopargaon which helps college to update day-to-day activities, achievements etc. and helps other people to connect with college.

Dr. Madhuri Jawale, Head, Department of IT appreciating Kalpnath and his guide for this work

STUDENT PARTICIPATION

- At Sanjivani, we prepare the leaders of tomorrow. Ms. Vaishnavi Naikwade successfully completed her 3 months Internship in the University of New Brunswick, Canada under the guidance of professor Dr. Janet Light. The internship has started on 6th June 2022 and ended on 28th August 2022. The internship helps students from India to work in collaboration with Canadian universities as research intern. This helps students to gain exposure to Canadian research environment. This internship is sponsored by collaboration of AICTE from India and MITACS from Canada.

Department of Computer Sciences and Applied statistics @UNBSJ

- In this Semester, 14 students have completed Internship provided by Winjit Technologies, Nashik in the field of web development framework such as Node.js, Angular JS, SQL as well Frontend and Backend development, Web Application etc. 30 students got internship opportunity to work with Celebal Technologies in the field of Powerapps, Data Engineering and Data Science. 1 student got an internship opportunity to work with Virtusa. 5 students got the internship opportunity in Linkcode Technologies in the field of Full Stack Java Internship, Full Stack Python Internship Mean Stack Internship, Machine Learning and AI.

- We are happy to share that all the students of department have registered for NPTEL course and 120 students have successfully completed the course on **Programming in Java** and **86** students successfully completed different coursera courses.

- 137 students from the department have successfully completed 8 week **Salesforce Developer/ Admin Virtual Internship** provided in association with AICTE, Persistent.

- All the students of SY completed Infosys Springboard Certification on **"Basics of Object Oriented Programming"** under the academic course Object Oriented Programming. Course Teacher Mrs. Kanchan Patil guided all the students. Along with this course, students have also completed the course on **"Github Fundamentals"**.

- From TY, students completed 272 Infosys Springboard Certifications on Building Web Applications with TypeScript, Angular and React, Programming Languages, Github Fundamentals etc.

- Students of Sanjivani College of Engineering participated in District level Youth Inspiration Network Kala Mahotsav organized by Sakal in association with PREC, Loni. From the department, Mr. Rohit Salve has secured 2nd position in Ramp Competition and 3rd position in Solo singing whereas Mr. Aditya Sakure, Mr. Vaibhav Chopade, Ms. Vaishnavi Naikwade, Ms. Vaishnavi Dhawade & group secured 3rd position in Skit Competition.

FACULTY PUBLICATION & PARTICIPATION

- We are happy to share that, Dr. Devyani Jadhav has successfully defended her Ph.D. in Computer Science and Engineering, titled **"Detection of Swine Flu Influenza using Machine Learning and IoT"** from SJJTU, Rajasthan.

Hon. Amitdada Kolhe, Manageing Trustee, SGI along with Dr. A. G. Thakur, Director, SCOE and Mr. A. A. Barbind, felicitating Dr. Jadhav

Team IT Congratulating Dr. Jadhav

- Mrs. Devyani Jadhav received **'Lady Engineer Award'** in recognition of excellent performance and remarkable work in the engineering field by Institution of Engineers, India IEI, Ahemednagar Local center on 15th September 2022.

- Happy to share that our 2 faculty members Mrs. Megha Kurhe and Mr. Nitin Shelake have been recognized in **TTT** (Train The Trainer) **Program of Virtusa** for their outstanding performance during training, capstone project submission & sprint submissions. These faculties are certified by Virtusa & eligible to train our students for **"Java Full Stack"** under **'Virtusa Centre of Excellence'.**

Hon. Amitdada Kolhe, Managing Trustee, SGI along with Dr. A. G. Thakur, Director, SCOE, Dr. D. B. Kshirsagar, Head, Computer Engineering and Dr. Madhuri Jawale, Head, IT felicitating Mr. Shelke and Mrs. Kurhe

- Dr. Yogesh Deshmukh received **Gold medal** & was topper whereas Dr. Rameshwar Chintamani, Mr. Rohit Nikam, Mrs. Kanchan Patil, Mr. Nitin Shelke, Mr. Dinesh Kumar, received **Silver medal** and Mr. S. Muthuraj, Mr. Prasad Mutkule, Mrs. Megha Kurhe has completed NPTEL Certification Examination, October 2022 successfully in the subject **"Programming in Java"**.

- Mrs. Kanchan Patil is awarded as **"NPTEL Discipline Star"** by NPTEL for being certified in courses of same discipline, more than 50 weeks of learning, final score in each subject $>= 55$.

Dr. Madhuri Jawale felicitating Mrs. Patil along with Team IT

- Dr. Mahendra Gawali has successfully completed the NPTEL course **"Business Analytics and Data Mining Modeling".**

- Dr. Mahendra Gawali and Dr. Devyani Jadhav has completed Online FDP on **Sensitization in Innovation & cutting Edge Technologies** organized by MSFDA, Pune from 12th to 27th September 2022 and 14th to 29th November 2022 respectively.

- Mrs. Kanchan Patil and Mrs. Megha Kurhe has completed an FDP on **Outcome based Curriculum design** organized by NITTR, Chandigarh from 5th to 9th September 2022.

- Mrs. Megha Kurhe and Mr. Prasad Mutkule have completed FDP on **Outcome based Education** organized by Sanjivani K.B.P. Polytechnic, Kopargaon on 28th & 29th November 2022.

- Dr. Madhuri Jawale and Dr. P. William have published a paper entitled, **"Energy efficient framework to implement next generation network protocol using ATM Technology"** in scopus indexed journal named measurement : sensors.

- Dr. P. William has published a paper entitled, **"Malware Threat Affecting Financial Organization Analysis Using Machine Learning Approach"** in International Journal of Information Technology and Web Engineering.

- Dr. Rameshwar Chintamani, Dr. Nikhil Patankar, Dr. Yogesh Deshmukh and Mr. Nitin Shelake published a paper entitled, **"Machine Learning Techniques For Brain Tumor Detection and Classification Using MRI"** in journal named Neuro Quntology.

- Dr. Nikhil Patankar, Dr. Yogesh Deshmukh, Dr. Rameshwar Chintamani and Mr. Nitin Shelake have presented a paper entitled, **"An Efficient System for the Prediction of House Prices using a Neural Network Algorithm"** in International Conference on Edge Computing and Applications (ICECAA2022) organized by Gyanmani College of Technology, Nammakal, Tamilnadu.

- Dr. Nikhil Patankar, Dr. Yogesh Deshmukh, Dr. Rameshwar Chintamani and Mr. Nitin Shelake have presented a paper entitled, **"An Efficient Machine Learning systems using sentinel analysis based for movie recommendation System"** in 3rd International Conference on Smart Electronics and communications

organized by Kongadu College of Technology, Trichy, Tamilnadu.

- Dr. Nikhil Patankar, Dr. Yogesh Deshmukh, Mr. Nitin Shelake have presented a paper entitled, **"An Investigation on Levaraging wireless sensor networks and radio frequency identification to develop Internet of Things application"** in International Conference on Artificial Intelligence and Data Science (ICAIDS-2022).

- Mr. Prasad Mutkule and Mrs. Megha Kurhe has presented a paper entitled, **"Face Mask Detection for COVID-19 precautionary measures using SVM Approach"** in Sardar Patel International on Industry 4.0 – Nascent Technologies and Sustainability for 'Make in India' Initiative organized by SPCE, Mumbai in association with SPIT, Mumbai, Capgemini, SAE India WS, IE (I), IIIE, FELA and technical collaboration with American Institute of Physics & IEEE, Bombay Section.

FACULTY INTERACTION

- Dr. Madhuri Jawale worked as a **Session Chair** in the Paper Presentation Competition organized by CSI Nashik Chapter and Gokhale Education Society's R.H.Sapat College of Engineering, Management Studies and Research, Nashik.

- Dr. Mahendra Gawali has worked as a reviewer for The Journal of Supercomputing for the topic Task Allocation Scheme using Hybrid Optimization Model in Serverless Computing Model.

- Dr. Madhuri Jawale has worked as a Resource Person for one day **"Faculty Orientation Program on Cyber Security"**, of TE AI & DS 2019 course on 27th January 2023 organized by Computer Engineering Department, MET's Institute of Engineering, Bhujbal Knowledge City, Nashik.

- Dr. Yogesh Deshmukh selected as **advisory committee member** for 3rd International conference on Data Science and Data Analytics organized by Sri Aurobindo Institute of Technology.

- Mrs. Kanchan Patil has delivered an Expert Talk on **"Advanced Concepts of Object Oriented Programming"** at Dr. D. Y. Patil Institute of Technology, Pimpri on 25th November 2023.

- Mrs. Nidhi Ruparel Sachade has conducted AICTE-UGC FDP and Student Workshops on Universal Human Values in Online and Offline mode.

ITERA EVENTS

- The first event organized by ITERA was **"Quiz Competition"** on 19th September 2022. A total of 126 students participated in the competition. From SY, Mr. Warkhade Pradip was winner and Khan Danish was runner up, from TY Mr. Shelke Sanket was winner and Ms. Rokade Laxmi was Runner up and from B. Tech Ms. Dhamale Pranali was winner and Ms. Amale Sanjana was Runner up.

- The second event organized was **"Reel Competition".** It was organized for the SY, TY, and B.Tech students on 12th October 2022. For the competition 12 students participated for the event. Mr. Chinmay Bitne from TY was winner and Mr. Vaibhav Shete and Mr. Sanket Shelke from TY were runner up.

- **"One Minute Show"** was organized specially for FY IT students on 7th November 2022. 60 students participated in the event. The event was organized to welcome FY IT students to department and college.

- **"BrainCore Competition"** was organized for SY, TY, and B. Tech students on 25th November 2022. For the competition 65 students from SY, 44 students from TY and 35 students from B. Tech participated. Mr. Gaurav Agrawal was winner and Mr. Pratik Jadhav was runner up from SY IT, from TY Mr. Tushar Saraf was winner and Mr. Sachin Sadgir was runner up and from B. Tech Ms. Sanjana Amale was winner and Mr. Vishal Shelar was Runner up.

Mr. Rohit Nikam
In-Charge, ITERA

CSI EVENTS

- It gives us a great joy to announce that the CSI accredited student wing was formed in our college with total 400 students from SY, TY, BTech IT and Computer. We are hopeful that this student wing will reach new heights by organizing thoughtful events and knowledge enrichment programs. Below is the brief description of events organized and conducted in First semester of academic year 2022-23.

"It always seems impossible until it's done." - Nelson Mandela

- The First event conducted was Awareness program on **"Cyber Security"**. Objective of the event was to improve the Technical skills of students. Total 49 students from 5th to 9th class of Sanjivani International School have attended the awareness session. It was conducted on 19th September 2022 at 2.30pm. Dr. Madhuri Jawale, Head, Department of IT and Mr. Chetan Bawankar, Assistant Professor were the resource persons for the same.

- The Second event conducted was **"Hunky Brains".** Objective of the event was to improve Technical and programming skills of students. Total 195 students from SY, TY and Final Year IT and Computer participated in the event. It was conducted on 10th November 2022. Mr. Suyog Dighe, S.Y.IT, Mr. Ishika Narkhede, T.Y.Computer and Mr. Avinash Maindre, B.Tech Computer were the winner.

- The Third event conducted was Awareness program on **"Internet of Things"**. Objective of the event was to improve the Technical skills of students. Total 41 students from 5th to 9th class of Sanjivani International School have attended the awareness session. It was conducted on 16th December 2022 at 12.15pm. Dr. Nikhil Patankar, Assistant Professor was the resource person for the same.

Dr. Madhuri Jawale

CSI Student Branch Counselor

ALUMNI SECTION

A success of any institution can be measured by the contribution the alumni make to our national life. Ultimately institutions' alumni are key to its growth. We are proud to say that our IT Department alumni are contributing in it and interacting with the students to make them aware about new technologies and helping them in their career path.

Webinar on "ETL/Data Warehousing"

A Seminar on "ETL/Data Warehousing" was organized in association with VAAVE (Enriching Alumni Relations) on Friday, 14th October 2022. The resource person for the same was Mr. Yogesh Borude, Senior Specialist Software Engineer, Wells Fargo and our proud alumni from 2006 batch. During the event, Dr. A. G. Thakur, Director, Sanjivani COE, Kopargaon welcome Mr. Yogesh and elaborated the progress of College. Dr. Madhuri Jawale elaborated the progress and growth of the department. Mr. Yogesh Borude focused on the preparation of interview and gave the most important concept related to ETL & Data warehousing. Almost 75 students attended the event.

Webinar on "Career Orientation"

A Seminar on "Career Orientation" was organized in association with VAAVE, (Enriching Alumni Relations) on Wednesday, 21st September 2022. The resource person for the same was Mr. Varad Joshi, Senior Solution Architect, HCL Technologies and alumni from 2005. Mr. Varad Joshi have focused on the finding the jobs and making students and fresh engineers ready for job. He gave various tips and tricks to be better than others. He suggested that instead of focusing on off-campus placements students should focus on college campus placements. Mr. Varad told that each and every student should be always ready with his/her resume; also he gave an idea on how to build an effective resume. He has covered many aspects related to placements as well as startups. Almost 80 students attended the event. Mr. Varad Joshi gave best difference between corporates and the startups. He has distinguished and well said that, "Big Corporates are about: 1. Structured Methods and Processes. 2. Well defined work. 3. Big Hierarchy. 4. Defined growth path. 5. Lesser scope for experimentation. 6. Lesser responsibilities. 7. Better work life balance. 8. Lesser but on-time salary. Whereas small Startups are about: 1. Undefined and changing processes. 2. Everyone does everything. 3. Flat Hierarchy. 4. Great playground for experiments. 5. Crazy work hours. 6. Better salary but lot of uncertainty.
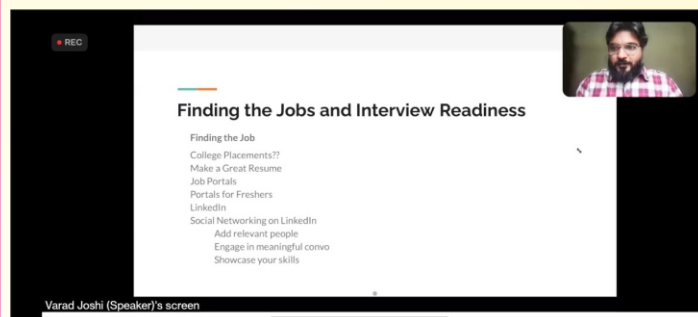
STUDENT ARTICLE

Plant Disease Detection Using Machine Learning

The good health of human rely on the kind of food they absorb. If the crop is unhealthy, it will affect human by producing different types of health problems because of poor nutrition. Thus it is only possible to achieve healthy nutrition if the crop is yield healthy. Plant diseases have a devastating effect on agricultural products. The monetary loss caused by plant diseases is estimated to be $30–50 billion annually. Viral plant diseases in particular cause significant damage to agriculture. The exploration of a "Deep Learning" approach for agricultural uses has intensified in research and opens the door to new uses and gains performance compared to current

methods. Especially, The Deep Learning" is used to determine the extraction of characteristics in a way that synthetic and to give a clear detection on a proposed data set. This method is used to reduce the memory footprint and improve performance. In general, "CNN" is the best method for any prediction problem involving input image data and requires minimal pre-processing. It is structured to classify large-scale images.
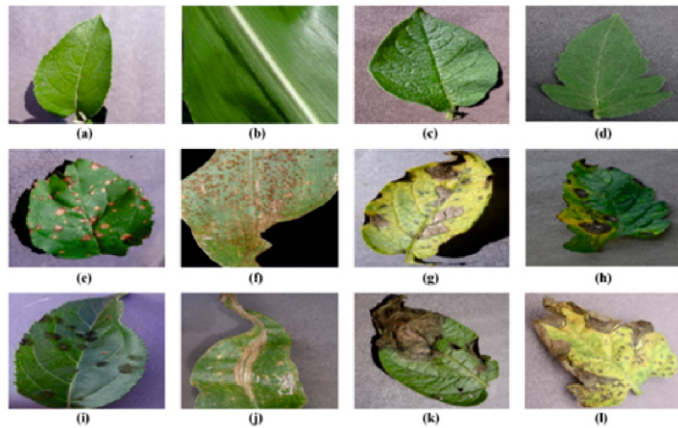

Fig.5 Sample images of healthy and diseased leaves from the PlantVillage dataset for disease classification. a Apple healthy; b corn healthy; c potato healthy; d tomato healthy; e apple black rot; f corn common rust; g potato early blight; h tomato early blight; i apple scab; j corn (maize) northern leaf blight; k potato late blight; l tomato Septoria leaf spot
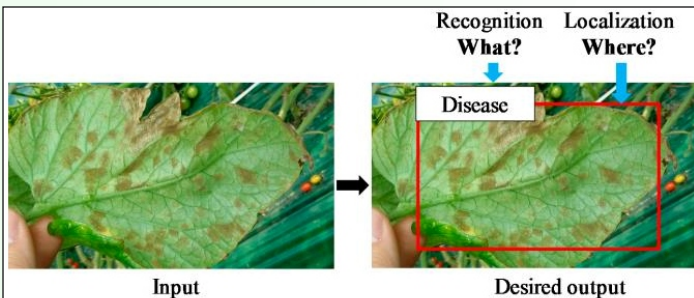
Fig. 4. Annotated Image

Objectives :

- To develop a software prototype for plant disease detection.
- To predict the disease type using image processing on input leaf image.
- To predict the risk level of the infection by analyzing the leaf symptoms.
- To reduce the production loss caused to the farmers by early detection.
- To give prevention measure suggested by agriculture expert.

System Architecture :
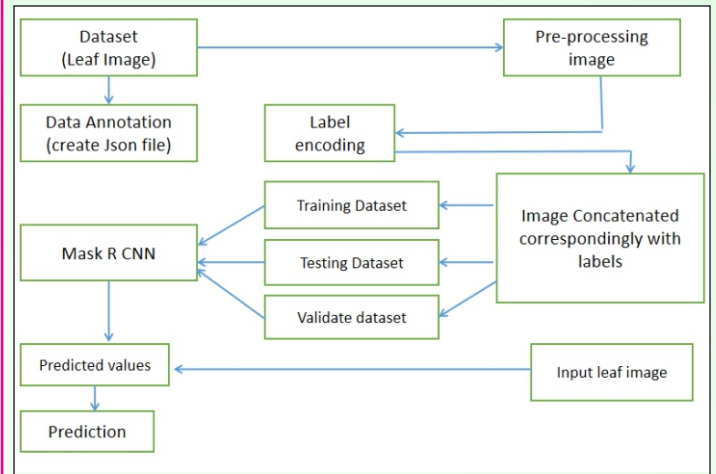
The System Architecture consists following components :

- **Leaf Dataset :** The Dataset used is Plant village leaf dataset which include total 54303 healthy and unhealthy leaf images divided into 38 categories by species and disease. Here we have considered 1200 healthy and unhealthy leaf images of 12 different categories.

- **Data Annotation :** Tool used is Image Annotation. It is a process of labeling image in which objects of interest in images are annotated with appended metadata so that it can be recognized by machine through computer vision. Software used to perform Image Annotation is VGG Image Annotation 1.0.1 and labeling technique used is polygon annotation.

- **Algorithm used is Mask-RCNN :** Mask-RCNN performs four main operations :

1. **Backbone of model :** The backbone model of In Mask-RCNN is ResNet 101 architecture. It is used to extract the features from the images. The extracted features are given as input to the next layer.

2. **Region Proposal Network (RPN) :** The features obtained by ResNet are given as input to RPN. This will predict whether the object is present in region or not.

3. **Region of Interest (ROI) :** To reduce the computation time ROI is calculated. So for the entire predicted regions given by RPN, computes the Intersection over Union (IOU) with the ground truth boxes.

$$\text{IOU} = \frac{\text{Area of the Intersection}}{\text{Area of the Union}}$$

If IOUs of each computed region is greater than or equal to 0.5 then it is considered as region of interest otherwise the rest are neglected.

4. **Segmentation Mask :** As we got ROI found on IOU esteems. This will give us the Segmentation Mask for each region which contains an object. It returns a mask of 28*28 for each region which is then scaled up in inference.

Advantages :

- The leaf disease detection can be used to identify the type of disease by simply using the single leaf image of plant.

- It's difficult to identify the type of the disease manually so a deep learning approach can be used to predict the disease by uploading leaf image on website.

- The use of deep learning in leaf disease detection is faster and efficient method.

- The system is fast, simple and easy to program.

Application :

- The System can be used in Bio-Farms to identify the disease and find the prevention measures on it.

- The plant leaf disease detection is also used in bio-pesticides industry to develop the pesticides that will be used as prevention measures.

- The Farmer can also able to reduce their total loss by taking prevention measures before time.

- Mr. Aher Siddharth Bhausaheb,

Mr. Devhare Akash Bhagwan,

Mr. Dhage Prashant Shivnath,

Mr. Khalekar Shreyas Dipak

- Guided by : Mr. Rajendra Kankrale

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