DEV SANSKRITI VISHWAVIDYALAYA

DEPARTMENT OF COMPUTER SCIENCE

e-newsletter

CYBER संस्कृति

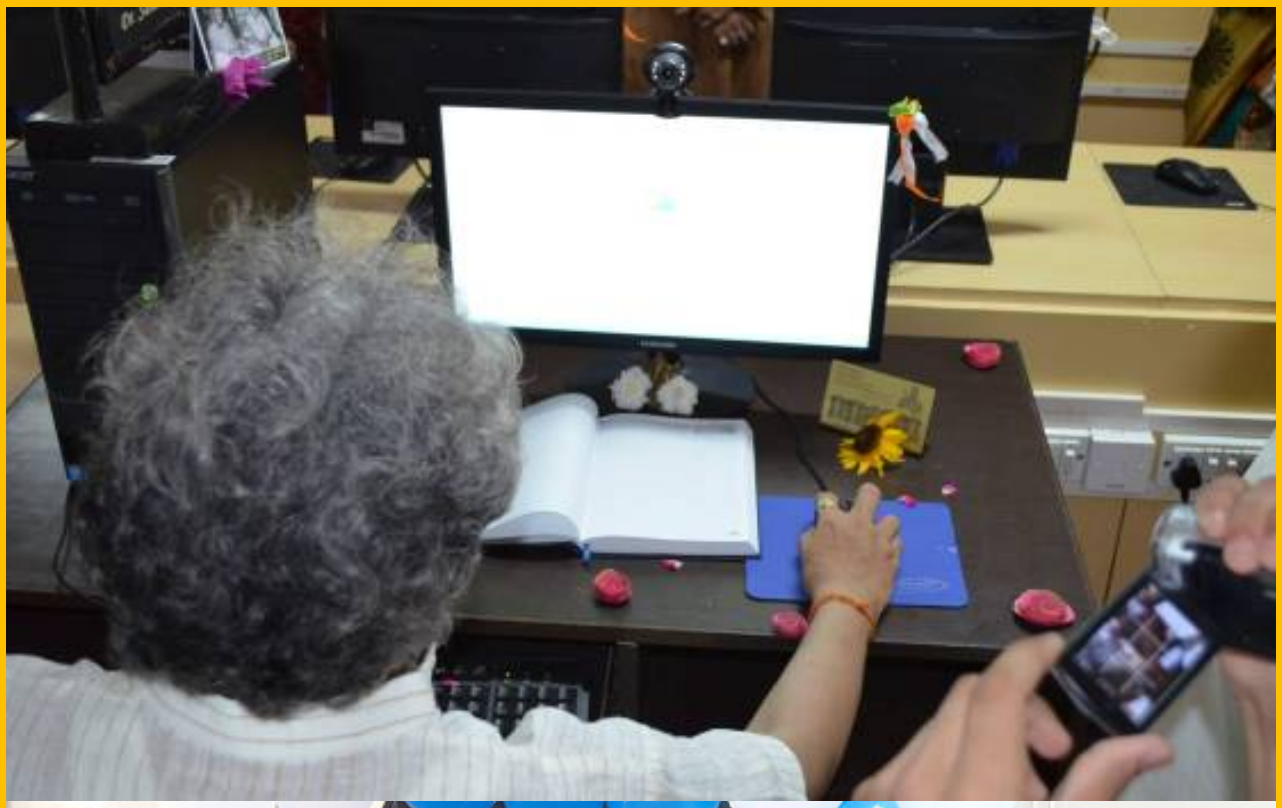
OCTOBER, 2023

WELCOME TO THE DEPARTMENT OF COMPUTER SCIENCE

In year 2006 Honorable Chancellor, Dr. Pranav Pandya, inaugurated the Department of Computer Science in Chaitanya Bhawan of Dev Sanskriti Vishwavidyalaya, Haridwar.

The Department of Computer Science at Dev Sanskriti Vishwavidyalaya is known for cutting edge research and for imparting state of the value based technical education. We attract some of the brightest students and faculty and invite you to join us in the excitement.

DEPARTMENT OF COMPUTER SCIENCE

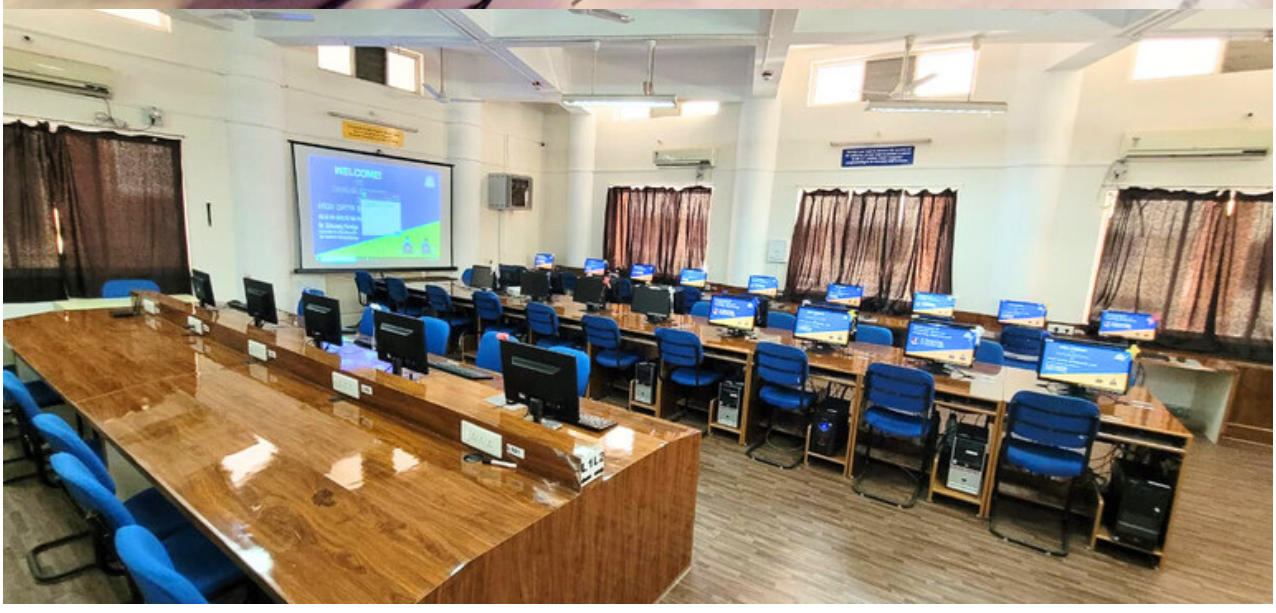


DEPARTMENT OF COMPUTER SCIENCE

Inauguration of MCA(Data Science) Lab
by Honorable Pro Vice-chancellor Dr. Chinmay Pandya

INFRASTRUCTURE & FACILITIES

- 5 ICT ENABLED CLASSROOMS
- 3 HIGHLY EQUIPPED LABS



INFRASTRUCTURE & FACILITIES

RESEARCH & THRUST AREAS

VEDIC INFORMATICS

CLOUD COMPUTING

ARTIFICIAL NEURAL NETWORK

ARTIFICIAL INTELLIGENCE

DATA SCIENCE

BLOCKCHAIN

MACHINE LEARNING

QUANTUM COMPUTING

STUDENT CORNER

Genetic Algorithms: Unleashing the Power of Nature in Problem Solving

Sharad Raj Singh Maurya
MCA (Data Science), 2022-2024

Genetic algorithms or GAs are a clever problem-solving technique inspired by the process of natural evolution. They work by simulating the mechanisms of genetic evolution to find optimal solutions to complex problems.

They leverage evolutionary processes to efficiently search large complex spaces for optimal solutions. They are commonly used for hyperparameter optimization, tuning the parameters of machine learning models to maximize performance. GAs can evolve neural network architectures, finding innovative designs through simulated evolution.

First, a population of random potential solutions is created, similar to how a species has variety in traits. Each solution is evaluated on how well it performs using a fitness function, like natural selection determining the survival of the fittest. The best solutions are chosen to be "parents" and are combined in a crossover process, exchanging parts of their traits, like offspring at every generation. Random changes called "mutations" are also applied, introducing innovation just like mutations in nature. This cycle of selection, crossover, and mutation continues over generations. With each new generation, the solutions improve, evolving toward highly optimal solutions.

It's survival of the fittest, simulated computationally! GAs leverage the power of evolution to solve challenges like finding the best schedule or the optimal path between locations. The key advantage is exploring many possibilities at once to find globally optimal solutions.

While mimicking evolution, GAs are a powerful general problem-solving method. They provide an efficient way to search vast possibilities for solutions that maximize performance criteria. Just like nature, genetic algorithms harness iterative improvement driven by selection pressure to generate increasingly fit solutions over generations. This bio-inspired approach is broadly useful for optimization, machine learning, and more.

We can see that by computationally simulating evolution, GAs can find great solutions that otherwise would be extremely difficult for humans to derive manually.

Blockchain: How it helps in Improving Supply Chain Management

Nabina Poudel
MCA (Data Science), 2022-2024

Blockchain technology is a decentralized peer-to-peer network used to create and maintain distributed ledgers or databases.

It is a series of encrypted data blocks, each containing information locked for access by a key holder. Linked together, these blocks form a chain, with each file including details like timestamps indicating data creation and historical information about preceding blocks. These records are organized into blocks, linked chronologically to form a secure and unalterable chain.

In the realm of supply chain, it ensures transparency and traceability by providing a single source of truth for all stakeholders. From the farmer's field to the retailer's shelf, each movement of goods is etched into the blockchain, enhancing visibility and reducing the risk of errors.

Blockchain's ability to automate manual processes takes a bow in reducing costs and errors. Contracts, payments, and inventory tracking move to the rhythm of efficiency, promising a smoother, more cost-effective supply chain. The technology also steps into the spotlight in risk management, acting as a safeguard against fraud, counterfeiting, and product recalls. By tracking the provenance of goods, blockchain ensures ethical sourcing and a safer consumer experience.

In conclusion, blockchain is not just a promise but a transformative reality in supply chain management. From farm to shelf, it leads the dance towards a brighter, more efficient future, where trust, transparency, and collaboration define the rhythm of success. The applause for blockchain's role in this revolution is not just deserved—it's resounding.

FACULTY & STUDENT VISITS

Students from the MCA (Batch 2021-2023) program visited several sites in Dehradun, including the Indian Institute of Remote Sensing (IIRS), part of ISRO, as well as the Forest Research Institute (FRI) and Buddha Temple. They were welcomed by Dr. Harish Karnataka (Head-IIRS) & Dr. Kamal Pandey (Scientist, Geoweb Services -IIRS)

FACULTY & STUDENT VISITS

- **Students of MCA (Data Science), 2022-24 participated in 2 Days National level Marathon Coding Competition (Tula's Hackathon 2023) hosted by Tula's Institute, Dehradun.**

Students of MCA (Data Science), 2022-24 along with Dr. Abhay Saxena and Dr. Naveen Kumar Pandey attended Rural Science Congress under the aegis of 17th Uttarakhand State Science and Technology Congress 2023 at UCOST, Dehradun from 10th -12th Feb, 2023.

FACULTY & STUDENT VISITS

Dr. Rajeshwari Trivedi & Dr. Sukhnandan Singh on their visit to NIELIT, Haridwar, Uttarakhand

FACULTY & STUDENT VISITS

Dr. Abhay Saxena, Dr. Naveen Kumar Pandey along with Sharad Raj, MCA(Data Science) provided training sessions in the workshop on Application of AI and ML in Natural Resources Management (NRM) for the scientists at The Indian Institute of Soil and Water Conservation (ICAR-IISWC), Dehradun.

The training took place from 3rd to 7th October 2023 and was attended by scientists from the Institute and other NRM institutes of ICAR.

RECENT ACTIVITIES

GANESH UTSAV

VISHWAKARMA POOJA

WORKSHOP

5-DAY DATA SCIENCE WORKSHOP BY MR. SWAYAM PRAKASH

RECENT ACTIVITIES

WORKSHOP
DIGITAL INDIA WEEK CYBER SECURITY & DIGITAL PAYMENT SYSTEM BY NIELIT HARIDWAR

WORKSHOP
DR. PRIYANK SINGHAL

TALK
“HOW MNC’S HIRE IT PROFESSIONALS AND WHAT KIND OF SKILLS ARE REQUIRED FOR IT”
BY PRAVIN MANGLAM

WORKSHOP
"HOW TO CRACK YOUR FIRST JOB INTERVIEW" BY MEGHA SHARMA

RECENT ACTIVITIES

WORKSHOP

5 DAYS WORKSHOP ON DATA SCIENCE AND BIG DATA TECHNOLOGIES
BY MR. SWAYAM PRAKASH

COLLABORATIONS

On Wednesday, October 19, 2022 Shri Anurag Kumar, Director, NIELIT Haridwar and Dr. Chinmay Pandya, Pro Vice Chancellor, Dev Sanskriti Vishwavidyalaya signed MoU for IT skilling of students of DSVV.

COLLABORATIONS

PROGRAM & SCHEMES IN OUR DEPARTMENT IN PARTERNSHIP WITH NIELIT

- **Digital Literacy Program**
- **'O' Level Program**
  - NIELIT is conduction 'O' Level (IT) Course of duration for 1-year which covers Web Technologies, Web Designing & Publishing, Programming and Problem Solving through Python, Internet of Things and its Applications along with hands on experience.
- **Microsoft's Cyber Siksha Program**
- **Workshop on Cyber Security and Digital Payment Systems during Digital India Week**

RAMANUJAN CODING CLUB

The Ramanujan Coding Club has been instrumental in nurturing coding skills and providing valuable learning experiences to its members. Through activities like competitive coding, workshops on Data Science, Resume Creation, Web Development and much more, the club has successfully enhanced the technical knowledge and professional growth of its members.

Competitive coding forms a significant part of club's activities. Members actively participate in coding competitions on platforms like CodeChef.

The club also encourages members to participate in external coding competitions and represents the college in coding events at national and global levels.

CodeChef Rank Table: START93D

Rank	Username	Name	Class	Score
1547	iamsharadraj	SHARAD RAJ	MCA SEM 3	300
11216	ayushi1227	AYUSHI	BSC IT SEM 3	200
11266	abhaysharma_01	ABHAY SHARMA	BSC IT SEM 3	200
13610	akaman446	AMAN KUMAR	BCA SEM 5	100

CodeChef Rank Table: START94D

Rank	Username	Name	Class	Score
726	abhaysharma_01	ABHAY SHARMA	BSC IT SEM 3	400
1924	iamsharadraj	SHARAD RAJ	MCA SEM 3	300
4013	iamnabina	NABINA POUDEL	MCA SEM 3	300
6099	akaman446	AMAN KUMAR	BCA SEM 5	300
12242	ayushi1227	AYUSHI	BSC IT SEM 3	200

CodeChef Rank Table: START96D

Rank	Username	Name	Class
4378	iamnabina	NABINA POUDEL	MCA SEM 3
8463	ayushi1227	AYUSHI	BSC IT SEM 3
13046	janhvipandey30	JANHVI PANDEY	BCA SEM 3

CodeChef Rank Table: START97D

Rank	Username	Name	Class	Score
1004	iamsharadraj	SHARAD RAJ	MCA SEM 3	400
5786	iamnabina	NABINA POUDEL	MCA SEM 3	300
11319	aman_4006	AMAN KUMAR	BCA SEM 3	200
13222	vibhavasudevv2	VIBHAVASU BHADOURIA	BCA SEM 3	100

RAMANUJAN CODING CLUB

Saturday Activity on Git & Github for Software Development

Saturday Activity on UI/UX & AI/ML projects of students in MCA(Data Science)

RAMANUJAN CODING CLUB

ALUMNI MESSAGE

CYBER AWARENESS

Department of Computer Science at DSVV hosts annual events during October to promote awareness for Cyber Security.

CYBER AWARENESS

Digital India Week 2023
Workshop on Cyber Awareness by
NIELIT, Haridwar, Uttarakhand

MESSAGE FROM DIGNITARIES

MESSAGE FROM DEAN & HOD

OUR PLACEMENTS

HDFC BANK

Infosys

BROADCOM

TATA CONSULTANCY SERVICES

pnb

Tech Mahindra

just answer

Orion Security Solutions

DIRECTORATE OF EDUCATION
Govt. of NCT of Delhi