

# MCA 2022

# NEWS LETTER



MCA@NCERC



## MCA – NCERC

The MCA Department at NCERC (Nehru College of Engineering & Research Centre) offers a comprehensive postgraduate program in Master of Computer Applications, aimed at developing skilled professionals in software development, data management, and IT solutions. The department emphasizes a blend of theoretical knowledge and practical experience through modern labs, workshops, seminars, and industry-oriented projects. With a curriculum aligned to KTU regulations, the MCA program focuses on fostering problem-solving abilities, research orientation, and professional competence. Supported by experienced faculty, a dedicated placement cell, and state-of-the-art infrastructure, the department ensures students gain both academic excellence and industry readiness, preparing them for successful careers in the rapidly evolving field of computer applications.





DOB 15/12/1939

DOD 09/06/2009

Our Founder Chairman

**Sri. P.K.Das**

The Bhishmacharya of Education



## *Message from the Chairman & Managing Trustee*

It is with great pride and heartfelt enthusiasm that I address the students, faculty, and staff of the MCA Department through this edition of our newsletter. The rapid evolution of technology and digital transformation has made Computer Applications one of the most dynamic and impactful fields today. At NGI, we are committed to providing a learning environment that not only equips our students with strong technical knowledge but also inspires innovation, ethical responsibility, and leadership.

Our vision for the MCA program is to nurture competent professionals who are not just capable coders but strategic thinkers — individuals who can solve real-world problems through creativity, collaboration, and continuous learning. We encourage you to embrace challenges, engage actively with industry trends, and participate in research, internships, and community outreach.

The faculty and administration have worked tirelessly to enrich the curriculum, enhance training facilities, and integrate industry-aligned practices to ensure that our graduates are globally competitive. I am confident that the MCA scholars of NGI will continue to set benchmarks in academic excellence, innovative projects, and impactful contributions to society.

Wishing you all continued success, intellectual growth, and boundless opportunities ahead

**Adv. Dr. P. Krishnadas**  
*Chairman & Managing Trustee, NGI*





## *Message from the CEO & Secretary*

Warm Greetings and Wishes from the Nehru Group of Institutions. I really deem it a honour and privilege in ventilating my views and well-conceived impressions over the Nehru College of Engineering and Research Centres. It is one among the proudest moments for me to say that the institute is the sole dream, realization and architecture of my beloved father P. K. Das who was the founder chairman. Situated on the bank of the river Nila in a more picturesque way, the campus is more of a temple of learning. Since its inception in the year 2002, the nationally acclaimed centre of knowledge and wisdom is the most desired and much sought out destination of true academicians, parents and students as well.

It makes me to keep on admiring the way the campus is forward marching over the years in terms of delivering world class education, research and training in the most upcoming field of technology.

Adding feather to its cap, the institution is ISO 9001:2015, certified and approved by the AICTE with the Affiliation to APJ Abdul Kalam Technological University besides being accredited by the NAAC.

A step into Nehru College of Engineering and Research Centres is a real step into a brighter world of Wisdom and Knowledge.

Dr. P .Krishnakumar

B.Com MBA M.Phil Ph.D.

CEO & Secretary, NCECT

Syndicate Member , Bharathiar University



## ***From the Desk of Principal***

At NCERC, we strive to provide an environment that fosters not only rigorous academic learning, but also innovation, creativity, and ethical professionalism. With state-of-the-art infrastructure, experienced faculty, and vibrant student community, the MCA Department encourages every learner to engage deeply with their studies, explore emerging technologies, and contribute meaningfully to research and real-world problem solving.

This newsletter celebrates the achievements, initiatives, and milestones of our students and faculty. You will find insights into academic activities, industry interactions, workshops, project highlights, and accomplishments that showcase the passion and dedication of our MCA community.

I congratulate everyone whose efforts have contributed to the success of this programme and encourage all students to make the most of the opportunities available here. Let us continue to pursue excellence with integrity, resilience, and enthusiasm as we prepare for future challenges and opportunities.

Wishing you continued success and growth!

Principal  
Prof. Dr. Ambikadevi Amma T



## ***From the Desk of HoD - MCA***

Our department is committed to providing a dynamic and intellectually stimulating environment where students can acquire not only strong technical knowledge but also the practical skills necessary to thrive in the ever-evolving field of computer applications. Over the years, we have focused on a balanced approach that combines rigorous academics, hands-on laboratory experience, industry-oriented projects, and research opportunities.

The MCA curriculum at NCERC is designed to develop problem-solving abilities, analytical thinking, and software engineering skills while keeping pace with emerging technologies such as Artificial Intelligence, Machine Learning, Cloud Computing, Data Analytics, and Cybersecurity. Our dedicated faculty members strive to mentor students at every stage, fostering creativity, innovation, and professional ethics.

We encourage students to actively participate in seminars, workshops, hackathons, and internships, which not only reinforce learning but also enhance their employability and readiness for the industry. The department also emphasizes the importance of collaboration, communication skills, and lifelong learning to prepare students to face global challenges confidently.

HoD - MCA  
Dr Sudheer S Marar

## **VISION**

To create a school of distinction for the PG students, prepare them to be industry- ready, and achieve Academic excellence by continuous endorsement of the Faculty team in terms of Academics, Applications & Research.

## **MISSION**

The Department of Computer Applications strives to provide quality and competency- based education and fine-tune the younger generation through Curricular, Co-Curricular and Extracurricular activities so as to encounter the Professional and Personnel challenges ahead with Pragmatic skills & courage, thereby 'Creating the True Citizens'.

We intend to facilitate our students to assimilate the latest technological know-how and to imbibe discipline, culture and spiritually, and to mould them into technological giants, dedicated research scientists and intellectual leaders of the country who can spread the beams of light and happiness among the poor and the underprivileged.

M1. To provide quality and competency- based Education

M2. To fine-tune the younger generation through Curricular, Co Curricular and Extra-curricular activities

M3. To encounter the Professional and Personnel challenges ahead with Pragmatic skills & courage, thereby 'Creating the True Citizens'.



# the campus



**Nehru College of Engineering and Research Centre, (NCERC)** Nila Gardens, Pampady, Thiruvilwamala, Thrissur Dt, Pin- 680 588, Kerala, was established in 2002 and has completed 18 years of dedicated service in the field of imparting education par excellence in Engineering, research and training. It currently runs a number of B.Tech. Courses in Computer Science Engineering, Electronics and Communication Engineering, Electrical and Electronics Engineering, Mechanical Engineering, Mechatronics Engineering and M.Tech. Courses in Computer Science Engineering, Cyber Security, Energy Systems, and VLSI Design. NCERC is also conducting MBA and MCA, courses.

The College is affiliated to the APJ Abdul Kalam Technological University and is approved by AICTE. In addition it is also certified with ISO 9001:2008 and is accredited by NAAC.

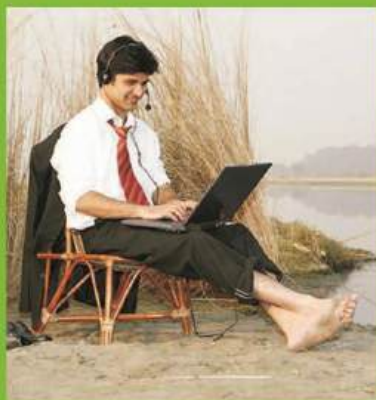
The Nehru College of Engineering and Research Centre is promoted by the Nehru College of Educational and Charitable Trust, one of the pioneers in the field of imparting professional qualitative higher education in diverse fields of technology since 1968. It focuses on molding the students into educated, committed true citizens and sets high standards of professionalism and ethics.

Since its inception, NCERC has excelled in academics by fetching enviable results in university exams. Our students have secured fifty one university ranks so far and are awarded the prestigious Nehru Vignjan Scholarship that includes cash prizes, gold coins and mementos. The saga of success of NCERC is the result of the committed and sincere joint endeavors of the students and the faculty. It has got a team of dedicated faculty who are competent in terms of qualification and experience and effective in terms of imparting professional learning practices. They have been able to build the finest and the best practices in academics through innovative teaching methods that include research work, surveys, projects, industry interface and many more. The faculty constantly endeavors to update their academic knowledge and explore the new sources of



# MASTER OF COMPUTER APPLICATIONS (MCA)

60 seats



**Master of Computer Applications (MCA)** is basically designed to meet the growing demand for qualified professionals in the field of Information Technology. As a postgraduate course, it equally focuses on providing a sound theoretical background as well as good practical exposure to students in the relevant areas of Computer Applications. The program is inclined more toward Application Development and thus has more emphasis on latest programming language and tools to develop better and faster applications.

The Software development as well as Software Service business is dynamic and fast growing. Hence, the MCA programme is designed keeping in view the requirements of industry. The programme aims at the understanding of the fundamentals of computing among the students so that they can compete in the present-day global situation. Students are trained in the fields of Systems Designing,

Application Software Development, Enterprise Resource Planning, Computer Networks, System Administration, Web Designing and Development, Database Administration, Parallel and Vector Processing, Data Mining and Warehousing, Wireless and Mobile systems, Technology Management etc.

The MCA program prepares students to take up positions as System analysts, Systems designers, Programmers and Managers in any field related to IT/ITES. The program, therefore, aims at imparting comprehensive knowledge with equal emphasis on theory and practice. Unlike other courses, the MCA students are encouraged to spend a full semester working in the industry giving them a perfect insight into the situations of the IT world. Meanwhile, the course curriculum will have enough flexibility to enable a student to undertake Advance studies as well as Research, in various Computing Domains later on.

ADV.DR.P KRISHNADAS	CHAIRMAN &MANAGING TRUSTEE
DR.P KRISHNAKUMAR	CEO & SECRETARY
PROF.DR.AMBIKADEVI AMMA T	PRINCIPAL
DR.SUDHEER S MARAR	HOD

SI NO	NAME	DESIGNATION
01	SUDHEER S MARAR	HOD
02	PRAMOD K	ASSISTANT PROFESSOR
03	DR DEEPA A	ASSISTANT PROFESSOR
04	ASHISH L	ASSISTANT PROFESSOR
05	VINEETHA K R	ASSISTANT PROFESSOR
06	MS DIVYA P	ASSISTANT PROFESSOR
07	MS SUMI M	ASSISTANT PROFESSOR

## RESOURCES FOR STUDIES, INFORMATION ON STUDY MATERIALS



### LIBRARY

The libraries of our college have been developed into real centers of learning. They contain the traditional collections of books, journals, periodicals and other printed materials besides audio, visual and electronic services. Students have access to library books and periodicals from 08.00 am to 08.00 pm. Electronic information service, media workshops and PC networks are also available in the library. It is kept open for over 80 hours in a week. The libraries are equipped with facilities to get online access. Moreover facilities to get access through our website have already been provided. Thus the students get total access in retrieving any information from the library.

### DIGITAL LIBRARY

Digital library of NCERC is developed to meet the most advanced information requirement of the aca-

demic community and is fully automated with software for easy and fast access. The library has a collection of 42,000 odd books under different topics to meet the ever growing demand of the students and faculty in the field of science and technology. There are 322 international/national journals and periodicals besides there are educational CD's of about 3000 in the library. This library is acting as a nodal centre for all digitalized information. Online library with links to all the leading libraries and Universities in India and abroad is also available in our college.

### INTERNET

NCERC is equipped with high speed lease line of 64 MBPS internet connectivity. This is done in order to enable the students to explore the widest range of information for their studies through internet.



## **The Year of AI and Cybersecurity - AISWARYA. K.R**

In 2022, artificial intelligence continued its rapid evolution, influencing many sectors from smart devices to data analytics. AI-powered cybersecurity became a major focus, as organisations increased reliance on machine learning models to detect and mitigate cyberattacks in real time, protecting sensitive data and critical infrastructure. AI also strengthened automation across industries, driving efficiencies in everything from customer service to predictive maintenance. Additionally, 5G rollouts accelerated and enabled faster, more reliable connectivity, which supported the expansion of IoT devices and real-time data processing. With 5G's high throughput and low latency, smart cities, connected vehicles, and remote working tools became more sophisticated and mainstream, laying a foundation for future technological innovations.

## **Top Tech Trends of 2022 - ARDRA MURALI**

In early 2022, global technology observers identified key trends such as smarter computing devices, quantum computing breakthroughs, and extended reality (XR). Devices became increasingly intelligent, from smart assistants to autonomous machines, while quantum computing held the promise of solving complex problems beyond classical computers' capabilities. XR technologies — including augmented and virtual reality — gained traction for immersive experiences in entertainment, business, and simulations. Another notable trend was digital trust, powered by blockchain, distributed ledgers, and NFTs, which redefined how digital assets are owned, shared, and verified. 3D printing expanded from rapid prototyping to real-world manufacturing applications, while advancements in genomics and new energy technologies pointed toward innovative solutions for health and sustainability.

## **The Metaverse and Web 3.0 Revolution - ASWIN KUMAR V N**

2022 marked a surge of interest in the *metaverse* and Web 3.0 technologies, reflecting a shift toward more immersive and decentralised digital experiences. These trends were rooted in extended reality, blockchain platforms, and next-generation internet concepts, where users can interact, play, work, and transact in virtual environments. These ideas promised significant changes in

social interaction, digital commerce, and entertainment. The metaverse was also closely tied to blockchain and decentralised systems, which provided the infrastructure for digital ownership and identity. Web 3.0 concepts aimed to give users more control over their data and digital interactions, challenging traditional, centralised models of the internet and fostering new economic models.

### **Tech Trends Shaping the Digital World - ATHULYAMOL V**

In 2022, cloud, network, and device convergence emerged as a key trend that enabled more efficient computing systems operating across environments — from on-premises equipment to edge devices and cloud platforms. This fusion helped deliver faster processing, more responsive applications, and real-time analytics for industries ranging from manufacturing to healthcare. Similarly, AI continued to expand its influence into renewable energy, automating the integration and management of smart grids and optimizing resource usage. Early forms of soft robotics started replacing traditional rigid robots, particularly in manufacturing and service tasks requiring gentle handling or interaction.

### **Defining Technology Shifts of 2022 - DHIVEG.D**

The rise of 5G and advancements in connectivity transformed how devices and networks operated, supporting millions more connected endpoints with greater stability and speed. Technologies such as real-time analytics and cloud computing helped enterprises manage exponential data growth while accelerating digital transformation efforts across industries. AI's role in cybersecurity became integral, as machine learning models offered predictive insights into threats rather than reactive measures. Wearable medical devices also emerged as a trend in 2022, enabling continuous monitoring and contributing to personalised healthcare solutions.

### **Metaverse and Robotics in 2022 - DIVYA .M.V**

In 2022, the concept of the *metaverse* echoed across multiple sectors, driven by increasing adoption of virtual worlds and AI-enhanced platforms. Enterprises and brands experimented with virtual spaces for engagement,

commerce, and experiences beyond traditional screens, blending digital and physical presence in novel ways. Robotics — supported by sophisticated AI — also gained prominence, with robots automating tasks across industries from food production to logistics. This signaled a broader shift toward automation and human–machine collaboration, demonstrating robotics’ growing practical impact beyond laboratory settings.

### **Emerging Home Tech at CES 2022 - GOPIKA.V**

At CES 2022, technology trends showcased innovations for smarter and more connected homes. Enhanced connectivity devices, such as advanced conferencing hardware and smart doorbell systems, improved remote communication and home security. Smart home appliances also offered personalization features through app and voice controls. Home fitness technology expanded with compact, smart workout equipment driven by connected apps. Smart lighting with biometric sensing capabilities and voice-controlled systems demonstrated how technology could enhance everyday living while addressing health and accessibility needs — especially for aging populations.

### **Downturns and Transformation in Tech - HIBHAYASMINE I**

While many technology trends in 2022 focused on innovation, several major shifts exposed vulnerabilities in core sectors. Economic pressures and rising interest rates led to significant downturns in growth expectations, causing tech companies to scale back projects and rethink long-term strategies around remote work, on-demand services, and cryptocurrencies. Despite these challenges, some technological fundamentals proved resilient, with continued investments in cloud computing, AI platforms, and foundational infrastructure, indicating that the industry was adapting rather than merely contracting.

### **Digital Fashion and Phygital Experiences - MANO K**

In 2022, fashion technology embraced *phygital* experiences — a hybrid of physical and digital — enabling brands to integrate NFTs and digital collectibles into traditional product lines. Luxury labels experimented with virtual goods and digital twins, redefining consumer engagement and retail strategies.



Augmented reality continued to expand, with platforms like Snapchat and Instagram enhancing commerce and interactive experiences. This evolution illustrated how technology was reshaping industries beyond pure tech sectors by merging real-world and digital interactions.

### **Strategic Tech Trends for 2022 - R SHRIRAM**

Tech leaders and analysts highlighted data-sharing innovations and new cloud architecture patterns as critical trends for 2022. These changes helped organisations break data silos and improve collaboration while preserving privacy and security, fostering innovation and competitive differentiation. Blockchain and distributed ledger technologies were also recognised for transforming business models across sectors like finance, supply chain, and assets management. These tools helped reimagine how businesses create and manage value in digital ecosystems.







## Farewell for Seniors....



## Navaratri Celebrations







GLIMPSES OF

**BHAAGMATI**  
20-TWENTY







