



FACULTY OF
COMPUTING AND
TECHNOLOGY

FCT

*Empowering minds,
driving innovation,
shaping a digital
future.*



Faculty of Computing and Technology

UNIVERSITY OF KELANIYA
SRI LANKA





WELCOME TO THE FACULTY OF COMPUTING AND TECHNOLOGY (FCT)

A realm where imagination meets innovation, and possibilities stretch beyond the horizon. Since our inception on 2016 , we've been pioneers of technological advancement in Sri Lanka, cultivating brilliance and fostering a community dedicated to sculpting a sustainable future.

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Faculty of Computing and Technology,
University Drive,
Bulugaha Junction,
Kelaniya, 11300
Sri Lanka.

Our Vision

To become a center of excellence in creation and dissemination of knowledge in Computing and Technology for sustainable development.

Our Mission

Strives for excellence in Computing and Technology through innovation and dissemination of knowledge and capacity building for the socio-economic development of the nation.

Our Goals

FCT aims for academic excellence, innovation, and societal impact through interdisciplinary collaboration and ethical responsibility.



Message from the Vice Chancellor

It is with great pleasure that I announce the inauguration of the Faculty of Computing and Technology at the University of Kelaniya. This momentous occasion stands as a testament to our unwavering dedication to academic excellence and innovation. I would like to express my sincerest gratitude to all who have contributed to this significant milestone.

Our new faculty is poised to shape the future through dynamic learning, interdisciplinary collaboration, and cutting-edge research. To our inaugural cohort of students, I extend my heartfelt congratulations. Your presence marks the beginning of a journey filled with promise and opportunity.

As we embark on this endeavour, let us remain steadfast in our commitment to excellence and inclusivity. Together, we will harness the power of technology to create a brighter future for all. Thank you for your dedication and support, and may the Faculty of Computing and Technology continue to reach new heights.

Snr. Prof. Nilanthi De Silva



Message from the Dean

Welcome to the Faculty of Computing and Technology (FCT), where innovation and exploration converge to shape the future. As the Dean of the faculty, I am honoured to guide our vibrant community on a transformative journey fueled by creativity, learning, and relentless pursuit of excellence.

Our academic programs, meticulously crafted and continuously refined through cutting-edge research and industry insights, provide a solid foundation for aspiring leaders in the ever-evolving landscape of computing and technology. Our faculty members, renowned experts in their respective fields, are not only dedicated educators but also mentors, guiding students on their journey to success.

Our state-of-the-art facilities and research centers offer hands-on learning, groundbreaking research opportunities, and industry collaborations, enriching student experiences for impactful careers in computing and technology.

Dr. Chamli Pushpakumara



Message from the Deputy Project Director/ ADB-STHRD Project

Today marks a significant milestone in our journey towards academic advancement and innovation. I would like to express my deepest gratitude to the Asia

Development Bank for their generous support, which has been instrumental in making this endeavor a reality. Their commitment to education and technology is commendable, and we are truly grateful for their partnership.

The establishment of this faculty signifies our dedication to shaping the future through education, research, and technological advancement. With state-of-the-art facilities and a team of esteemed faculty members, we are poised to empower the next generation of innovators and leaders in the field of computing and technology.

As we embark on this exciting journey together, let us remain focused on our mission to harness the power of technology for the betterment of society. I look forward to witnessing the incredible achievements that lie ahead for the Faculty of Computing and Technology at the University of Kelaniya.

Prof. Dhammika Weerasinghe



OUR ODYSSEY

Embarking on a voyage of discovery and enlightenment, FCT set sail on January 18th, 2016. Nestled along the University Drive, at the Bulugaha Junction in Kelaniya, our faculty hums with the energy of progress. Here, three pillars stand tall: Computing, Engineering Technology, and Bio Systems Technology. These domains of expertise form the cornerstone of our academic excellence.

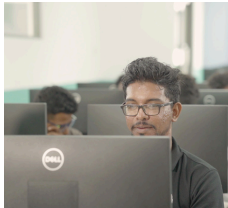
At FCT, we're not just educators; we're dream cultivators. With a vibrant community of 1000+ undergraduate students, we foster an environment where creativity thrives and aspirations soar. Join us as we intertwine knowledge with innovation, forging path toward a luminous tomorrow.

From humble beginnings in Peliyagoda, as a team with a well-articulated mission, under the guidance of Dr. Gamini Wijayarathna, the first Dean of the faculty, and Dr. Chamli Pushpakumara, the current Dean, we've now found our permanent home, thanks to the unwavering support of the Asian Development Bank through the Science and Technology Human Resource Development Project (ADB/STHRD), our dreams of a sustainable, state-of-the-art facility have materialized. This green building complex showcases many advanced and sustainable features, expected to earn a prestigious green platinum ranking. Their generous investment not only provides us with a physical structure but also stands as a testament to our unwavering commitment and relentless dedication to environmental stewardship and academic excellence.

ACADEMIC OFFERINGS AT FCT

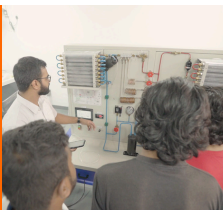
We take pride in offering degrees both in Computing and Technology domains, tailored to meet the dynamic demands of the digital era. A degree from FCT is an excellent start to a professional career path and truly rewarding experience for our students.

POSTGRADUATE DEGREE PROGRAMMES



**Master of Science in
Information Technology in
Education Degree
MSc (ITE)**

**Master of Science in Cyber
Security
MSc (CS)**



**Master of Science in Data
Science
MSc (DS)**

UNDERGRADUATE DEGREE PROGRAMMES



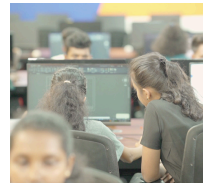
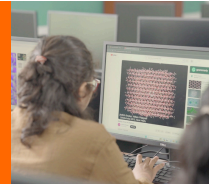
**Bachelor of Information and
Communication Technology
Honours Degree
BICT**

**Bachelor of Engineering
Technology Honours Degree
BET**



**Bachelor of Science Honours in
Computer Science Degree
BSc (CS)**

**Bachelor of Bio Systems
Technology Honours Degree
BBST**



**Bachelor of Science in Applied
Software Engineering
BSc (ASE)**

At FCT, we are committed in nurturing the next generation of leaders, thinkers, and innovators.

We provide a supportive learning environment where creativity flourishes, ideas are explored, and dreams are realized.

Join us at the Faculty of Computing and Technology, where knowledge meets innovation, and together, we pave the way for a brighter tomorrow.

Study at FCT

At the Faculty of Computing and Technology , we prioritize excellence in education and student support. Here's why you can trust the quality and standards of our programmes.

Recognized by the Industry: FCT is endorsed by 100+ Industry partners and professional bodies, ensuring top-tier standards.

State-of-the-Art Facilities: Experience the advanced laboratory complex, teaching facilities, library resources, and student welfare center at FCT, thoughtfully designed to enrich your university life and support your career journey.



Elevated Learning Methods

- Experience a true Learning-Centered Education environment that enables the engagement of educators with the learners and critical thinkers, to make them more globally competitive.
- Our assessment methods are tailored to each course, ensuring a comprehensive evaluation of the skills and knowledge.



Excellent Teaching Approach

- Engage in diverse teaching methods: lectures, seminars, and personalized tutoring sessions.
- Participate in hands-on learning: labs, field trips, and industry interactions.
- Excellent teaching facilities with state-of-the-art technologies.
- Additional help with English and Mathematics through a custom developed programmes.

Enhanced Careers Prospects

- We are not only focusing on providing the education but also on developing the skills necessary to succeed in professional careers.
- We pride ourselves on our industry connections and student industry placements.

LEARNING CENTRED EDUCATION

FCT has adopted the learning centred education pedagogy for its programme design and delivery as a pioneering effort in Sri Lanka.

Our journey began with a groundbreaking leap as we embraced the learning-centered education paradigm, a pioneering initiative proudly making its debut in Sri Lanka. Guided by the esteemed Professors in University Education Development from the Oxford Learning Institute, University of Oxford, our faculty has embarked on a transformative voyage.

Here, students are not mere recipients of knowledge but active participants in their educational odyssey. Through meticulously curated tasks and activities, both within and beyond the classroom, we empower students to navigate their learning journey with confidence and zeal.



Assessments take on a transformative approach as well, avoiding the rigidity of end-of-semester exams in favour of a continuous evaluation model. Students go over a landscape of formative and summative assessments, each methodically aligned with pre-defined rubrics to gauge mastery and growth throughout the module. From riveting mini-lectures to collaborative group projects, every element is designed to spark critical thinking and drive learning outcomes to new heights.

In this academic ecosystem, marks are not just a reflection of one-time performance but a testament to the journey of growth and discovery. As students navigate the terrain of learning-centered education, they earn their stripes through a combination of continuous assessments, emerging not just as scholars but as architects of their own success.

RESEARCH AT FCT

Our research enterprise spans a vast spectrum, from fundamental inquiries in Computer Science to the development of cutting-edge Engineering technologies poised to reshape industries and societies worldwide. At the heart of our degree programs lies the essence of creation, where the birth of new technology is nurtured and celebrated. Research at FCT is primarily coordinated by the Research Centres, serving as the nexus for groundbreaking discoveries and innovative collaborations that drive progress in our fields.

CENTER FOR ADVANCED MATERIALS AND SMART MANUFACTURING (CAMSM)

The Center for Advanced Materials and Smart Manufacturing (CAMSM) operates with the vision of being the center of excellence for translational academic research in engineering and bio systems technology domains that promotes sustainable national development. The key objectives of the center include facility creation for research in the fields of advanced materials, smart manufacturing processes, bio systems and environmental technologies, inculcating a research culture in FCT, developing a sustainable research ecosystem in FCT, and promoting research driven innovation and entrepreneurship in engineering and bio systems technology domains.

CENTER FOR DATA SCIENCE (CDS)

At the Faculty of Computing and Technology, our Center for Data Science (CDS) delivers professional-grade services encompassing advanced data analytics, predictive modeling, and artificial intelligence solutions. Backed by expertise in data visualization and statistical analysis, we provide tailored strategies to drive innovation and empower decision-making in diverse domains

CENTER FOR EXCELLENCE FOR TECHNOLOGY EDUCATION (CETE)

Center of Excellence in Technology, fosters innovative teaching and learning methodologies alongside a "teaching as research" approach, aimed at creating and disseminating knowledge for sustainable development.

CENTRE FOR CYBER SECURITY AND DIGITAL FORENSICS (CCSDF)

The Centre for Cyber Security and Digital Forensics (CCSDF) at the Faculty of Computing and Technology is at the forefront of cutting-edge research and education in safeguarding digital environments. Our interdisciplinary approach equips students with practical skills and theoretical knowledge to tackle contemporary cyber threats. With state-of-the-art facilities and expert faculty, we empower future professionals to navigate the complexities of cyberspace securely. Join us in shaping the future of digital security through innovation and expertise at CCSDF.





COLLABORATIVE FACILITIES

INNOVATION HUB & INCUBATION CENTER

Within this dynamic environment lies a Maker Space - a dedicated space for hands-on innovation and experimentation, a development center with 24-person dedicated workspace for software solution development, equipped with amenities ranging from meeting rooms to recreational areas, fostering collaborative teamwork, operating 24/7 with open work environment. The Incubation center provides six modern office spaces tailored to suit budding entrepreneur's needs perfectly. At the Incubation center, our mission is to foster the growth of emerging companies, supporting them through the challenging startup phase when they are most susceptible. The Incubation center amplifies the efforts of aspiring technopreneur talents as they envision the future.

RECORDING STUDIO

Our cutting-edge Recording Studio spans over 1000 sqft, accompanied by an editing and media suite. These facilities offer opportunities and support to enhance digital content and creator skills, in partnership with our Gaming and Animation Team. Whether it's video creation or production, you'll have access to the spaces and equipment required to become a digital leader.

ENGINEERING WORKSHOP

Our Engineering Workshops equipped with state-of-the-art equipment and tools to facilitate hands-on learning and practical skill development. Within our workshops, students have access to a diverse array of machinery, including milling, drilling, welding, and grinding machines, as well as lathe machines, CNC technology, and Universal Testing Machines. These tools enable students to explore various manufacturing processes and techniques, honing their abilities in fabrication and production. Additionally, our workshops feature equipment for carpentry work and heat treatments, providing comprehensive training across a spectrum of engineering disciplines. With a focus on experiential learning and real-world application, our workshops empower students to become proficient engineers capable of tackling complex challenges in the field.

VR AND AR LAB

Our Virtual Reality (VR) and Augmented Reality (AR) Lab is a cutting-edge facility dedicated to immersive experiences, spanning advanced virtual and augmented reality technologies. With state-of-the-art equipment and resources, we provide opportunities and support for individuals and teams to explore and develop their skills in digital innovation. Collaborating with experts in the field, we empower creators to push the boundaries of virtual and augmented reality content creation.



These spaces are available for collaborations with external partners.

Reach out to us for further information on collaboration opportunities;



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LABORATORIES AND AUDITORIUM

COMPUTER LABORATORIES

Our Computer facilities consists of 03 laborotories equipped with 100 computers each catering to a variety of digital needs, 02 high-end computer labs specifically designed for video, gaming, and animation production, offering top-of-the-line hardware and software for unparalleled performance and 02 networking labs to facilitate hands-on learning and experimentation in the field of networking technologies. Complementing these facilities is our state-of-the-art data center, equipped with cutting-edge infrastructure to support research, development, and practical training in data management and processing. Whether you're a student, researcher, or industry professional, our computer labs provide the ideal environment to explore, innovate, and excel in the digital world.

ENGINEERING LABORATORIES

Our Engineering Laboratories showcase as state-of-the-art facilities, test equipment, and analytical instruments. We cater to the needs of the materials and process, industrial automation and robotics, and sustainable technologies sectors. Our faculty houses high-end instruments, including XRD, HPLC, ICP-OES, TGA, ED-XRF and many other equipment, ensuring students have access to cutting-edge tools for their teaching, research and experimentation. Moreover, our fully equipped workshops with state-of-the-art machinery, providing hands-on experience in fabrication and manufacturing processes. Additionally, our mechanical and robotics laboratories are outfitted with advanced simulators, offering immersive learning experiences in these fields. With our comprehensive resources, students have the opportunity to explore, innovate, and excel in the diverse fields of engineering.

AUDITORIUM AND CONFERENCE CENTER

Our Auditorium and Conference Center is a premier venue with a seating capacity of 1000, designed to host events of all scales with elegance and sophistication. Equipped with the most modernized stage lighting and sound systems providing audiences with immersive experiences. Our conference center offers a range of amenities, including small meeting rooms, discussion areas, and a coffee lounge designed to meet the highest standards of functionality and comfort. Guests can also enjoy our luxurious lobby facilities which provides a welcoming ambience. Our rooftop area offers a picturesque setting for networking events. Whether it's a grand performance or a corporate gathering, our Auditorium and Conference Center provide the perfect setting for unforgettable experiences.

INDUSTRY COLLABORATIONS

Industry Interaction Cell for Computing and Technology (IICfCT)



IICfCT serves as the vital link between academia and industry, recognizing the symbiotic relationship between these two entities.

Dedicated to fostering collaboration, enhancing students' employability, and facilitating the exchange of knowledge and expertise, IICfCT stands as the industrial arm of the Faculty.

“ We are committed to bridging the gap between theory and practice, ensuring that our students are well-prepared for the challenges of the professional world. ”

Join with us for



Collaborative opportunities for joint research and innovation.



Access to top talent and diverse expertise



Access to research facilities and resources.



Industry-specific training programs for skilled workforce.



Enhanced brand visibility and reputation.



Networking opportunities with industry peers and academia.



Stay updated on emerging trends, technologies, and best practices in the field.



Potential for cost-effective solutions and enhanced efficiency through collaboration



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Serving since 2015

Faculty of Computing and Technology

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The Faculty of Computing and Technology offers the information contained in this prospectus as a guide only. Every effort has been made to ensure that the information contained within the prospectus is correct at the time of writing in May 2024. However, the faculty does not accept any liability for any errors that it may contain, or for any subsequent change to the University or Governmental policy that may affect the information given. This publication was edited by Pradeep W. Samarasekera, Saraga Ganeshakumaran, and Melani Augustin, Industry Interaction Cell for Computing and Technology, University of Kelaniya.