



2024 / 25

PROSPECTUS

**FACULTY OF TECHNOLOGY
UNIVERSITY OF SRI JAYWARDENEPURA**





Message from Vice-Chancellor



I am delighted to extend my warmest welcome to the newly enrolled students of the Faculty of Technology, University of Sri Jayewardenepura. The establishment of the Faculty in 2015 represented a landmark achievement in Sri Lanka's higher education landscape, fulfilling the growing demand for specialized technology programs following the introduction of the technology stream in the G.C.E. Advanced Level examinations. In response, our University pioneered the nation's first Faculty of Technology, opening vital pathways in this rapidly expanding domain.

Despite the inherent challenges of building a new faculty, we have far surpassed our founding ambitions. Today, the Faculty stands as a leading center for technology education in

Sri Lanka, delivering high-quality undergraduate programs that enjoy strong national and international recognition. Our graduates continue to secure promising career opportunities, underscoring the practical relevance and industry alignment of our offerings.

In keeping with the fast-paced evolution of technology, we regularly update our curricula in close consultation with academic experts and industry leaders, ensuring our graduates remain highly competitive and adaptable in the global workforce. The Faculty is celebrated for its commitment to quality, innovation, and state-of-the-art infrastructure that enables advanced teaching, research, and practical training.

We currently offer three Honours undergraduate programs: Biosystems Technology, Engineering Technology, and Information and Communication Technology. These programs span a wide array of disciplines, equipping students with a solid foundation to excel across diverse technological sectors. Our esteemed academic staff, renowned for their expertise, dedication, and mentorship, deliver an education that seamlessly integrates theoretical depth with hands-on application, creating a supportive and collaborative learning environment.

Our programmes are accredited by relevant professional bodies, maintaining the highest academic standards and ensuring the credibility and value of our degrees. Located in the spacious 20-acre Pitipana Techno City campus, the Faculty boasts modern facilities designed for cutting-edge research and innovative learning.

As you commence this transformative academic journey, you will acquire essential skills and experiences that will empower you to drive technological progress in Sri Lanka and contribute meaningfully on the international stage. I urge you to fully embrace the opportunities here, engage actively with our dedicated academic and non-academic staff, who are committed to guiding and supporting your success.

The University of Sri Jayawardenepura remains steadfast in its mission to create the next generation of professionals, arming them with the knowledge, innovation, and resilience required to navigate and shape a rapidly changing world. Our ongoing pursuit of excellence ensures that our programs evolve to meet emerging challenges and opportunities.

Welcome to the Faculty of Technology at the University of Sri Jayawardenepura, a place where innovation, excellence,

and vision unite to forge the future of technology. I wish you a fulfilling, inspiring, and successful academic experience.

Senior Professor M. M. Pathmalal
Vice-Chancellor
University of Sri Jayawardenepura

Message from Dean



I am delighted to welcome our newest cohort of students to the Faculty of Technology at the University of Sri Jayewardenepura. This is a transformative journey that will shape your futures and open doors to endless opportunities in the ever-evolving world of technology.

Our faculty is a leading institution for technological education in Sri Lanka, renowned for its unwavering commitment to excellence and its crucial role in shaping the next generation of skilled professionals. Joining our community means engaging with forward-thinking academic programmes complemented by valuable real-world experience. This ensures you graduate not only with a degree but also with a strong distinctive skill set that sets you apart in today's competitive job market.

Our diverse Honours degree programmes in Biosystems Technology, Engineering Technology and Information and Communication Technology are carefully aligned with the ever-changing demands of the technology sector. This is achieved through a balanced blend of in-depth theoretical learning hands-on practical training and collaborative research. Our graduates are academically strong and fully prepared for industry success. Beyond academics, we develop professionals with the mindset, technical proficiency and adaptability needed to excel in any technological environment.

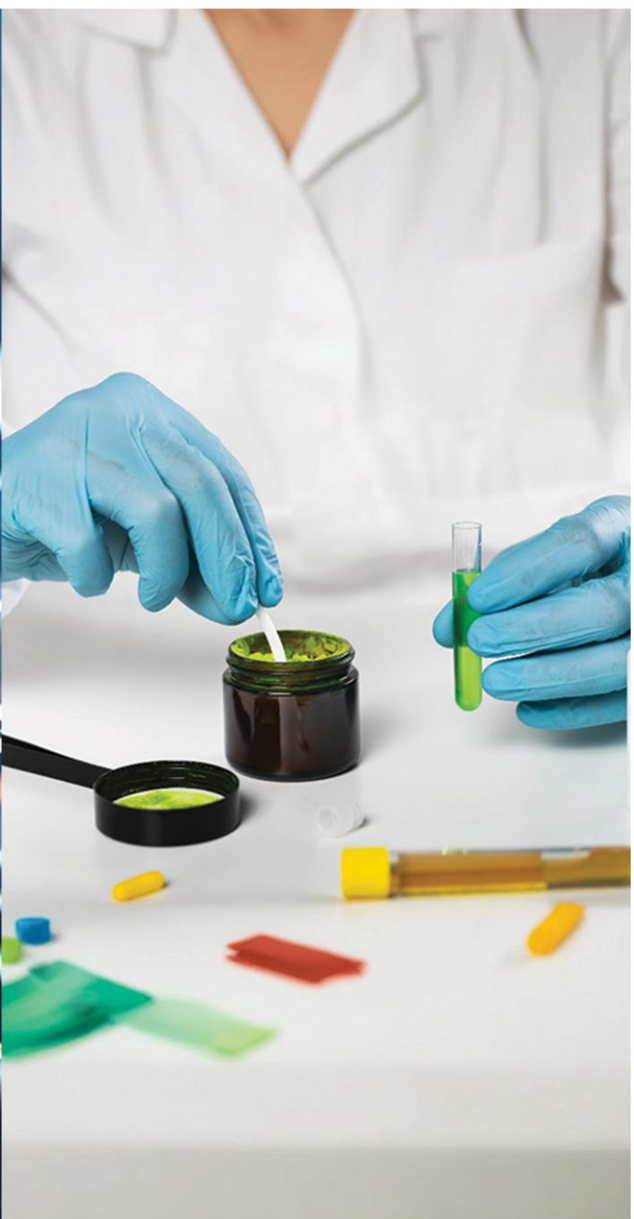
Our approach's key strength lies in its focus on experiential learning. We forge strong partnerships with leading industries to provide valuable opportunities like internships industrial training placements and research collaborations. This allows you to apply your knowledge in authentic professional settings. This proven model consistently delivers outstanding results with our graduates enjoying exceptional employability. Employers in Sri Lanka and internationally highly regard them.

As you embark on this exciting new chapter, I am confident the knowledge, skills and experiences you will gain here will enable you to make valuable contributions to the ever-evolving field of technology. The Faculty of Technology is more than just an

academic institution; it is a vibrant community that fosters creativity, drives innovation and prepares students for success in a rapidly changing technological landscape.

Congratulations once again on joining our distinguished Faculty. I wish you a truly enriching rewarding and successful journey as you build the foundation for a bright future in technology.

Professor Renuka Nilmini Liyanage
BSc (Hons) (Colombo), PhD (Cardiff)
Dean, Faculty of Technology, University of Sri Jayewardenepura.



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University of Sri Jayewardenepura



VISION

“Prosper Lives Through Education”



MISSION

The mission of the University of Sri Jayewardenepura is to “develop globally competent citizens through our education for a sustainable future, drawing inspirations from our cultural heritage and wisdom”, which was founded upon the ancient Buddhist text “Vijja upp thathan settha”, translated to Sinhalese as “among all that rise, knowledge is the greatest”. The university is committed to pursue the transmission of knowledge through teaching, research, and active service to the community, which prospers in an environment which values creativity freedom of intellectual thoughts, freedom of expression, equal opportunity, fairness and professional growth. The University continues to excel as an institution of higher education in Sri Lanka, contributing to the national development by providing a balanced, up to date education consists of theoretical and practical knowledge and by building interactions between the University and the wider outside community.



History of the University of Sri Jayewardenepura

The University of Sri Jayewardenepura was originally established as Vidyodaya University under Act No. 45 of 1958. It was one of the two premier Buddhist Pirivenas at the turn of the twentieth century. Evolving from the Vidyodaya Pirivena at Maligakanda, Colombo, Ven. Welivitaye Soratha Maha Thero, the Chief Preceptor of the Pirivena at that time, was appointed as the first Vice-Chancellor of the University. The university was ceremonially opened on February 16, 1959. It moved to its current location in Gangodawila on November 22, 1961.

Vidyodaya University began its academic activities with five faculties: Buddhist Studies, Philosophy, Languages, Arts, Ayurveda, and Science. Initially, majority of both academic staff and students were male, with many being Buddhist monks. The enactment of the Higher Education Act No. 20 of 1966 brought significant changes to the Sri Lankan university system, including the opening of university admissions to female students. This Act also removed the restriction on the post of Vice-Chancellor being held only by a member of the Sangha, and set new criteria for academic and administrative appointments, determined by the National Council of Higher Education.

During the 1971-1972 insurgency, the university premises were used as an army detention camp for suspected insurgents. As a

result, the university operated from several locations in the Colombo area to ensure that academic and administrative services continued without disruption. In 1972, under the University of Ceylon Act No. 1, Vidyodaya University became Vidyodaya Campus as part of the newly established University of Sri Lanka. The University was then headed by a campus president appointed by the Minister of Education. With the passage of the Universities Act No. 16 of 1978, the University regained its independent status and was renamed the University of Sri Jayewardenepura, while certain coordinating functions were assigned to the newly formed University Grants Commission (UGC).

In response to the rapid expansion of higher education after 1978, the University of Sri Jayewardenepura increased the number of faculties. As of 2025, the University stands strong with eleven (11) faculties: Faculty of Humanities and Social Sciences, Faculty of Applied Sciences, Faculty of Management Studies and Commerce, Faculty of Medical Sciences, Faculty of Graduate Studies, Faculty of Engineering, Faculty of Technology, Faculty of Allied Health Sciences, Faculty of Dental Science, Faculty of Urban and Aquatic Bioresources, and Faculty of Computing.

Faculty of Technology University of Sri Jayewardenepura



The Faculty of Technology at the University of Sri Jayewardenepura stands as a groundbreaking addition to Sri Lanka's higher education landscape. Established in January 2016 with the approval of the University Grants Commission and formalized through Gazette Extraordinary No. 1948/59 under Section 27(1) of the Universities Act No. 16 of 1978, the faculty is committed to advancing technological education in the country.

As Sri Lanka's leading technology faculty, this institution plays a vital role in equipping students with industry-relevant skills.

It caters primarily to students entering the university system through the G.C.E. Advanced Level Technology stream, offering them a unique opportunity to harness emerging technologies for economic and societal progress. The faculty's vision is to empower the nation's youth with cutting-edge technological competencies, driving innovation and industrial growth.

Currently located at the Techno Park in Pitipana, Colombo, as part of the Western Province Megapolis Development Plan, the Faculty of Technology provides a conducive learning environment. The faculty initially offered three Bachelor of Technology Honours

Degree programs in Biosystems Technology, Engineering Technology, and Information and Communication Technology. These programs, introduced for the first time in Sri Lanka, cater to 500 undergraduates annually, blending theoretical knowledge with practical application to meet industry demands.

The introduction of the G.C.E. Advanced Level Technology stream in 2013 marked a significant shift in Sri Lanka's education system. The first cohort sat for their examinations in 2015, necessitating the establishment of specialized degree programs. Recognizing this need, the University of Sri Jayewardenepura took the initiative to establish Sri Lanka's first-ever Faculty of Technology, aligning with the government's vision.

The foundation for this initiative was laid in 2013 under the leadership of former Vice-Chancellor Dr. N.L.A. Karunaratne, who appointed Prof. P.B. Mandawala as the project coordinator. Subsequently, Vice-Chancellor Prof. Sampath Amaratunge led the efforts, forming an advisory board comprising eminent academics, including Prof. D.A. Tantrigoda (Chairman), Prof. Ajith Abeysekara, Prof. M.M. Karunanayake, and Prof. K. Deheragoda.

In March 2015, the University Council approved the appointment of leading academics, Prof. Kapila C. K. Perera and Dr. Ranjan

Perera, as lead consultants for curriculum development. Supporting them was a dedicated team, including Dr. Rajitha Gunaratne and Dr. Tharaka Ariyadasa, alongside six senior consultants specializing in various technological fields: Prof. T.M. Pallewatta, Dr. L.D.J.F. Nanayakkara, Dr. T.A. Piyasiri, Dr. Ranjith Amarasinghe, Mr. D.K. Withanage, and Mr. J. Meegoda.

In 2016, Prof. Siromi Samarasinghe from the Faculty of Applied Sciences was appointed to further strengthen the senior consultant team. Additionally, in-house consultants from the Faculty of Applied Sciences Dr. S.B. Navaratne, Dr. I. Wansapala, Dr. (Mrs.) S. Weerasinghe, Dr. E.A.T.A. Edirisuriya, Dr. T.G.I. Fernando, and Dr. L. Ranatunge played a crucial role in curriculum development. A series of workshops were conducted to refine the curriculum, ensuring it met industry standards and maintained academic rigor. The proposed curricula received Senate approval on September 23, 2015, followed by University Council endorsement on October 8, 2015, and final approval from the University Grants Commission on November 19, 2015.

The establishment of the Faculty of Technology was formally presented to His Excellency President Maithripala Sirisena and key officials, including the Minister of Higher Education and Highways, Hon. Lakshman Kiriella, and State Minister of Higher Education, Hon. Mohan Lal Gero.

With their support, the Ministry of Higher Education officially announced the faculty's formation through Gazette Extraordinary No. 1948/59 on January 8, 2016.

Initially housed in Nugegoda, the faculty later relocated to its permanent premises at Techno Park, Pitipana. The Sri Lankan government allocated necessary funding and land to facilitate this transition. The construction of the faculty premises was executed as a joint venture between Maga Engineering (Pvt) Ltd and Engineering Consultants (ECL), with completion ahead of schedule. On June 8, 2020, the fully equipped faculty was officially inaugurated by Prime Minister Mahinda Rajapaksa.

In 2020, the faculty expanded its academic offerings by establishing three additional departments: Science for Technology, Materials and Mechanical Technology, and Civil and Environmental Technology. These new departments, branching from the Department of Engineering Technology, further enhance the faculty's multidisciplinary approach to education and research.

Today, the Faculty of Technology at the University of Sri Jayewardenepura stands as a beacon of innovation and excellence. As it welcomes its ninth batch of students, the faculty continues to shape the future of technological education in Sri Lanka, setting new benchmarks for academic and industrial collaboration.



Faculty of Technology University of Sri Jayewardenepura

MISSION

The mission of the Faculty of Technology is to become a center of academic excellence by creating highly innovative and competent graduate technologists to cater the social and industrial needs.

GRADUATE PROFILE

A student who has completed an undergraduate degree at the Faculty of Technology of the University of Sri Jayewardenepura will be,

- able to demonstrate technical proficiency and professional competence in the field of technology.
- able to function effectively as a member or leader in multi-disciplinary and multi-cultural teams.
- able to effectively communicate technical knowledge, ideas and proposals to all levels of hierarchy.
- committed to the principles of sustainable design and development, ensuring professional and socio-ethical responsibilities.
- equipped with the skills and capacity for lifelong learning.



OPENING CEREMONY OF FACULTY OF TECHNOLOGY



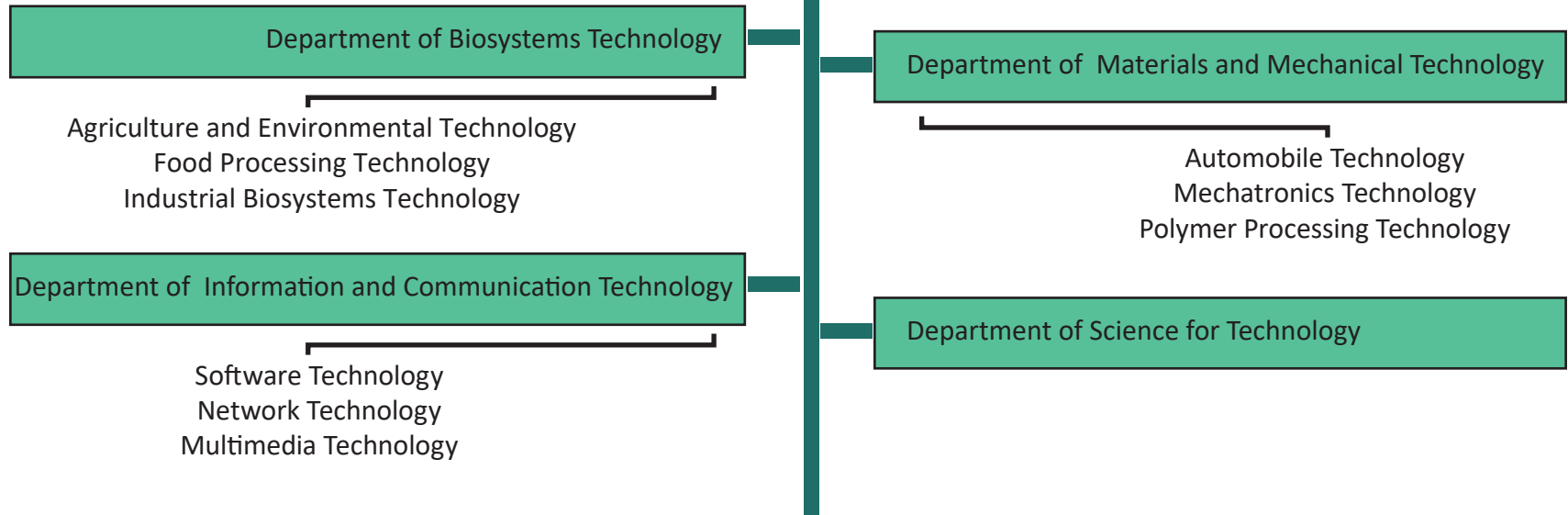
BUILDING COMPLEX OF FACULTY OF TECHNOLOGY



Faculty of Technology Comprises Five Departments

FACULTY OF TECHNOLOGY IS COMPRISED OF FIVE MAJOR DEPARTMENTS

The Faculty of Technology offers Bachelor of Technology Honours Degrees in the fields which are highly demanded in Sri Lanka. These degree programs are four-year professional degree programs which are offered at Sri Lanka Qualification Framework (SLQF) Level 6.



Department of Biosystems Technology

The Department of Biosystems Technology (BST) conducts the Bachelor of Biosystems Technology (BBST) Honours Degree Program. The major focus of the BST Department is to produce skillful, knowledgeable, and competent Biosystems Technologists who are able to develop sustainable and resilient solutions to current and future global challenges related to agriculture, natural resources and environmental systems, and processing systems for food, bioenergy, health, and other bioproducts. The BBST degree can serve a wide spectrum of career interests and can provide excellent career opportunities for students.

The BST department offers BBST Honours Degree in the following three specializations:

- Agriculture and Environmental Technology (AET)
- Food Processing Technology (FPT)
- Industrial Biosystems Technology (IBST)

An annual intake of 135 prospective undergraduates who followed the G.C.E (A/L) Biosystems Technology stream will be enrolled in this degree program. These students will have the opportunity enroll in one of three aforementioned specializations at the beginning of the second year, based on their preference and academic performance in the first year of study.

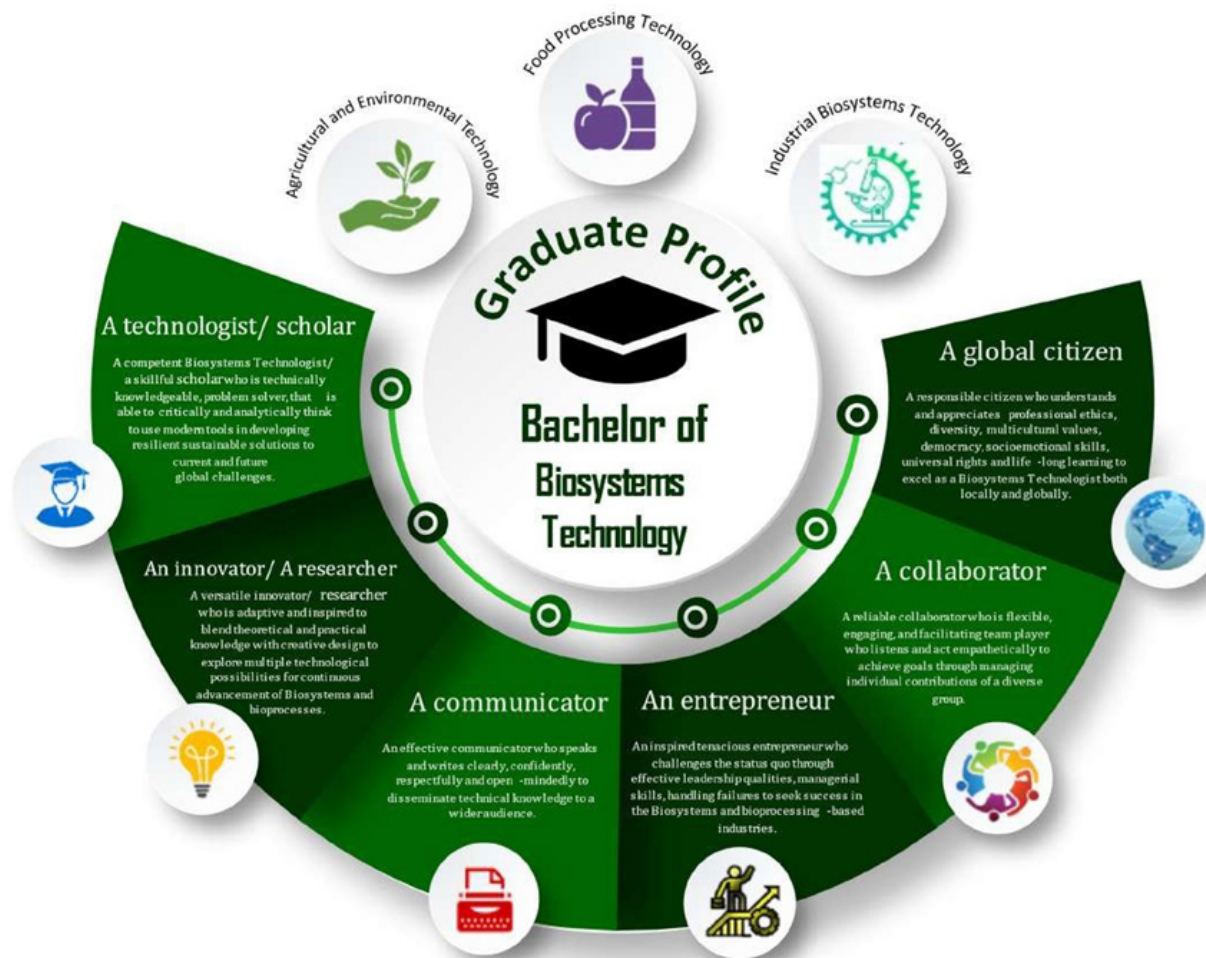
The BBST Honours Degree Program is in the process of certification receiving the National Biotechnology Industry Association (NBIA). NBIA is the major institute in Sri Lanka responsible for the accreditation of Biosystems Technology Degrees.

Honours Degree Programs, providing consultative feedback on the development of Biosystems Technology Degree Programs compatible with global practices. NBIA further oversees the biotechnology profession in Sri Lanka, which is empowered to admit membership, classify and confer titles indicating the professional standing of its members.

In the BBST Honours Degree Programme,

- The first year of study is designed to provide the students with necessary knowledge in basic sciences, pure and applied mathematics and basic computing skills.
- The modules offered in the first and second semesters are common for all three specializations.
- The modules offered from the second year onwards provide the students with fundamental and applied aspects of Biosystems Technology related to their respective specialization.
- Six months Industrial Training/Internship Program will be conducted in the seventh semester for all AET, FPT, and IBST students.
- Students will start and complete their Final Year Research and Design Project in the seventh and eighth semesters.

Graduate Profile - Bachelor of Biosystems Technology Honours Degree



Programme Learning Outcomes - Bachelor of Biosystems Technology Honours Degree Programme

- PLO1: Ability to achieve appropriate mastery of the knowledge, techniques, skills, and modern tools in biosystems technology.
- PLO2: Ability to apply current knowledge and adapt to emerging applications of mathematics, science, engineering, and biosystems technology.
- PLO3: Ability to conduct, analyze and interpret experiments, and apply experimental results to improve processes.
- PLO4: Ability to apply creativity, innovation and managerial skills in the design of systems, components, or processes.
- PLO5: Ability to function effectively in teams.
- PLO6: Ability to identify, analyze, and solve technical problems.
- PLO7: Ability to communicate effectively, not only with technology professionals but also with the community at large.
- PLO8: Ability to recognize the need for and maintain self-motivation for lifelong learning.
- PLO9: Ability to commit towards the professional, ethical, and social responsibilities.
- PLO10: Ability to recognize the global diversity and responsibilities of professional biosystem technologists to achieve sustainable development goals.

Year 01 - Common Modules

Semester 01

| <i>Module code</i> | <i>Module title</i> |
|--------------------|----------------------------------|
| BSC1013 | Mathematics I |
| BSC1022 | Principles of Statistics |
| BSC1032 | Physics for Technology |
| BBC1042 | Biology for Technology |
| BIC1052 | Computing for Technology |
| BSC1062 | Communication Skills I / English |
| BSC1071 | Technology Projects* |

Semester 02

| <i>Module code</i> | <i>Module title</i> |
|--------------------|--|
| BSC1082 | Mathematics II |
| BSC1093 | Chemistry for Technology |
| BBC1102 | Principles of Microbiology |
| BMC1112 | Principles of Design and Manufacturing |
| BIC1122 | Introduction to Computer Programming |
| BSC1132 | Engineering Drawing |
| BSC1142 | Communication Skills II / English |
| BSC1152 | Personality Development and Ethical Conduct of Learners* |
| BIC1161 | Creative Designing* |

NOTE:* Non-GPA module (NGPA)



Year 02 - Agriculture and Environmental Technology

Semester 03

| <i>Module code</i> | <i>Module title</i> |
|--------------------|--|
| BBA2222 | Composting Technology |
| BBA2232 | Farm Machinery, Structures, and Automation |
| BBA2242 | Plantation Crop Management |
| BBC2252 | Principles of Biotechnology |
| BBA2262 | Protected Agricultural Technology |
| BBA2272 | Technology Practical I |
| BBA2282 | Technology Workshops I |
| BBA2542 | Sustainable soil and Irrigation Systems |

Semester 04

| <i>Module code</i> | <i>Module title</i> |
|--------------------|---|
| BBC2292 | Agricultural Biotechnology |
| BBA2302 | Agrochemicals in Sustainable Agriculture |
| BBA2312 | Phytotechnology in Environmental Sanitation |
| BBC2322 | Post-Harvest Management Technology |
| BBA2332 | Surveying and Landscaping |
| BBA2342 | Urban Agricultural Technology |
| BBA2352 | Technology Practical II |
| BBA2362 | Technology Workshops II |
| BSC2712 | Economics and Financial Management |

Year 03 - Agriculture and Environmental Technology

Semester 05

| <i>Module code</i> | <i>Module title</i> |
|--------------------|--|
| BBA3372 | Meteorology and Applied Hydrology |
| BBA3382 | Paddy and Field Crop Production Technology |
| BBA3402 | Precision Agriculture Technology |
| BBA3412 | Organic Agricultural Technology |
| BBA3422 | Agricultural Development and Policy |
| BBA3432 | Technology Practical III |
| BBA3442 | Technology Workshops III |
| BBA3552 | Animal Husbandry |
| BBC3722 | Principles of Quality Management |

Year 03 - Agriculture and Environmental Technology

Semester 06

| <i>Module code</i> | <i>Module title</i> |
|--------------------|--|
| BBA3452 | Animal Feed Technology |
| BBA3462 | Water Resource and Water Quality Management |
| BBA3472 | Plant Propagation Technology |
| BBC3482 | Waste Management Technology for Circular Economy |
| BBA3491 | Indigenous Knowledge Systems in Agriculture |
| BBA3501 | Innovation Advancements |
| BBA3512 | Technology Practical IV |
| BBA3522 | Technology Workshops IV |
| BBC3732 | Biostatistics |
| BBC3741 | Occupational Health and Safety |
| BBC3751 | Research Methods and Scientific Writing |

Year 04 - Agriculture and Environmental Technology

Semester 07

| <i>Module code</i> | <i>Module title</i> |
|--------------------|----------------------------------|
| BBA4986 | Industrial Training / Internship |

Semester 08

| <i>Module code</i> | <i>Module title</i> |
|--------------------|--|
| BBA4532 | Hybrid Seed Technology |
| BBA4996 | Research and Design Project |
| BSC4761 | Entrepreneurship and Small Business Management |
| BBC4772 | Professional Development and Ethics* |

Elective modules

| | |
|-------------|---------------|
| Elective I | Refer page 28 |
| Elective II | |

NOTE:* Non-GPA module (NGPA)

Year 02 - Food Processing Technology

Semester 03

| <i>Module code</i> | <i>Module title</i> |
|--------------------|--|
| BBF2213 | Principles of Food Processing Technology |
| BBF2222 | Principles of Food Biochemistry |
| BBF2232 | Food Physics |
| BBF2242 | Industrial Microbiology |
| BBF2251 | Indigenous Knowledge in Food Processing Technology |
| BBF2262 | Food Safety and Legislation Management |
| BBF2272 | Food Processing Technology Practical I |
| BBF2282 | Food Processing Technology Workshops I |

Semester 04

| <i>Module code</i> | <i>Module title</i> |
|--------------------|---|
| BBF2292 | Agro Product Technology |
| BBF2302 | Beverage Processing Technology |
| BBF2312 | Spices and Condiments Technology |
| BBC2322 | Post-Harvest Management Technology |
| BBF2332 | Principles of Product Designing |
| BBC2342 | Principles of Marketing |
| BBF2352 | Food Processing Technology Practical II |
| BBF2362 | Food Processing Technology Workshops II |
| BSC2712 | Economics and Financial Management |

Year 03 - Food Processing Technology

Semester 05

| <i>Module code</i> | <i>Module title</i> |
|--------------------|--|
| BBF3372 | Bakery and Confectioneries Processing Technology |
| BBF3382 | Livestock and Aqua Products Technology |
| BBF3392 | Extrusion Technology |
| BBF3402 | Food Enzyme Technology |
| BBF3412 | Nutritional and Functional Aspects of Foods |
| BBF3422 | Processing Plant Designing |
| BBF3432 | Food Processing Technology Practical III |
| BBF3442 | Food Processing Technology Workshops III |
| BBC3722 | Principles of Quality Management |

Year 03 - Food Processing Technology

Semester 06

| <i>Module code</i> | <i>Module title</i> |
|--------------------|---|
| BBF3452 | Dairy Processing Technology |
| BBF3462 | Legumes and Oil Seeds Processing Technology |
| BBF3472 | Food Quality and Sensory Analysis |
| BBF3481 | Food Packaging Technology |
| BBC3491 | Supply Chain Management |
| BBF3502 | Automation Technology for Food Industry |
| BBF3512 | Food Processing Technology Practical IV |
| BBF3522 | Food Processing Technology Workshops IV |
| BBC3732 | Biostatistics |
| BBC3741 | Occupational Health and Safety |
| BBC3751 | Research Methods and Scientific Writing |

Year 04 - Food Processing Technology

Semester 07

| <i>Module code</i> | <i>Module title</i> |
|--------------------|----------------------------------|
| BBF4986 | Industrial Training / Internship |

Semester 08

| <i>Module code</i> | <i>Module title</i> |
|--------------------|--|
| BBF4532 | Emerging Trends in Food Processing |
| BBF4996 | Research and Design Project |
| BSC4761 | Entrepreneurship and Small Business Management |
| BBC4772 | Professional Development and Ethics* |

Elective modules

| | |
|-------------|-------------------------------|
| Elective I | Refer page 28 |
| Elective II | |

NOTE:* Non-GPA module (NGPA)

Year 02 - Industrial Biosystems Technology

Semester 03

| <i>Module code</i> | <i>Module title</i> |
|--------------------|---------------------------------------|
| BBI2212 | Molecular Basis of Biological Systems |
| BBI2222 | Plant Tissue Culture Technology |
| BBI2232 | Bioresources and Bioeconomy |
| BBI2242 | Enzyme Technology |
| BBC2252 | Principles of Biotechnology |
| BBI2262 | Industrial Fermentation Technology |
| BBI2272 | Biotechnology Practicals I |
| BBI2282 | Biotechnology Workshops I |

Semester 04

| <i>Module code</i> | <i>Module title</i> |
|--------------------|--|
| BBC2292 | Agricultural Biotechnology |
| BBI2302 | Analytical Methods in Industrial Chemistry |
| BBI2542 | Biochemistry |
| BBI2322 | Industrial Bioprocess Technology |
| BBI2332 | Marine Bioresources and Applications |
| BBC2342 | Principles of Marketing |
| BBI2352 | Biotechnology Practicals II |
| BBI2362 | Biotechnology Workshops II |
| BSC2712 | Economics and Financial Management |

Year 03 - Industrial Biosystems Technology

Semester 05

| <i>Module code</i> | <i>Module title</i> |
|--------------------|---|
| BBI3372 | Animal Biotechnology |
| BBI3382 | Advanced Industrial Bioprocess Technology |
| BBI3392 | Biopharmaceutical Technology |
| BBI3402 | Herbal Technology |
| BBI3412 | Aquaculture Technology |
| BBI3422 | Biomimicry, Biomaterials, and Biosensors |
| BBI3432 | Biotechnology Practicals III |
| BBI3442 | Biotechnology Workshops III |
| BBC3722 | Principles of Quality Management |

Year 03 - Industrial Biosystems Technology

Semester 06

| <i>Module code</i> | <i>Module title</i> |
|--------------------|---|
| BBI3452 | Environmental Biotechnology |
| BBI3462 | Nanobiotechnology |
| BBI3472 | Cosmetic Technology |
| BBC3482 | Waste Management Technology for Circular Economy |
| BBC3491 | Supply Chain Management |
| BBI3501 | Seminar on Special Topics |
| BBI3512 | Biotechnology Practicals IV |
| BBI3522 | Biotechnology Workshops IV |
| BBC3732 | Biostatistics |
| BBC3741 | Occupational Health and Safety |
| BBC3751 | Research Methods and Scientific Writing |

Year 04 - Industrial Biosystems Technology

Semester 07

| <i>Module code</i> | <i>Module title</i> |
|--------------------|----------------------------------|
| BBI4986 | Industrial Training / Internship |

Semester 08

| <i>Module code</i> | <i>Module title</i> |
|--------------------|---|
| BBI4532 | Applied Bioinformatics |
| BBI4996 | Research and Design Project |
| BSC4761 | Entrepreneurship and Small Business Management |
| BBC4772 | Professional Development and Ethics* |

Elective modules

| | |
|-------------|-------------------------------|
| Elective I | Refer page 28 |
| Elective II | |

NOTE:* Non-GPA module (NGPA)

Elective Modules offered by three specialization areas of the Department of Biosystems Technology:

| <i>Module code</i> | <i>Module title</i> |
|--------------------|--|
| BBA4812 | Animal Product Technology |
| BBA4822 | Floriculture Technology |
| BBA4832 | Green Technology for Sustainable Agriculture |
| BBF4842 | Cleaner Production Technology |
| BBF4852 | Climate Resilient Food Systems and Disaster Management |
| BBF4862 | Consumer Perception Analysis |
| BBI4872 | Functional Foods |
| BBI4882 | Immunotechnology |
| BBI4892 | Trends in Cosmetic Technology |

It is compulsory to register for two elective modules (Elective I and Elective II) from the above list. An elective module is offered only with a minimum of 10 student registrations.

Diploma in Cosmetic Technology

The Department of Biosystems Technology at the Faculty of Technology (FOT), University of Sri Jayewardenepura, offers the exclusive Diploma in Cosmetic Technology, a one-year program (SLQF 03), making it the sole government university in Sri Lanka providing such specialized education in the field of Cosmetic Technology. With an extensive curriculum comprising 26 theory credits, 03 credits of practicals, along with tutorials, individual and group presentations, industrial visits, and mini-research projects, this program is designed to furnish students with a robust understanding of cosmetic science and technology.

The primary objectives of this diploma course are to instill fundamental principles in cosmetic science, furnish practical experience in formulating various cosmetic products and conducting quality control analysis, and equip students with the leadership and managerial competencies necessary for venturing into or managing a cosmetic enterprise.

This course caters to a diverse audience, including small and medium-scale cosmetic entrepreneurs, cosmeticians, cosmetologists, beauticians, medical practitioners, university students, and individuals aspiring for careers within the cosmetic industry. The diploma programme is coordinated by Prof. Kaushalya Abeysekera and is scheduled to enroll its fourth batch in 2026.



Academic Staff

Department of Biosystems Technology



Prof. Lasanthi Jayathunge
BSc. Agri. (Hons) (Peradeniya), MPhil. (Peradeniya), PhD (Queens University Belfast, UK)
Head of the Department
Professor
Research interests: Thermal and non-thermal processing of fruits and vegetables, Post-harvest technology, Grain processing, Food analysis, and Bioaccessibility of nutrients
E-mail: lasanthi@sjp.ac.lk



Prof. Nilushi Nugara
BSc. Agri. (Hons) (Ruhuna), MSc. Agri. (Japan), PhD (Japan), Research Fellow (University of the Ryukyus, Japan), Dip. Counselling (Sri Jayewardenepura)
Professor
Research interests: Adipogenesis, Murine cell culture, Coumarins, Food and Nutrition, Agricultural sciences
E-mail: nilushinug@sjp.ac.lk



Prof. Rohan Dassanayake
BSc. Chemistry (Hons) (Peradeniya), PhD (Kent State University, USA), Post-Doctoral Fellow (Texas Tech University, USA)
Professor
Research interests: Development of sustainable, green, economically feasible and renewable biomaterials based composites for; Sequestering of greenhouse gases, Remediation of industrial effluents, Food packaging, Biosensors, Energy storage and biomedical applications, Nanobiomaterials, Biopolymers, CO₂ sequestration, Environmental remediation, Kinetics and mechanistic studies, Material science, Industrial bioprocessing and Nanobiotechnology.
E-mail: rdassanayake@sjp.ac.lk

Academic Staff

Department of Biosystems Technology



Prof. Lanka Undugoda
BSc. (Hons) (Ruhuna), PhD (Kelaniya)
Professor
Research interests: Fermentation technology, Food microbiology, Bioremediation, Biofertilizer, Industrial microbiology and Microbial biotechnology
E-mail: lankaundugoda@sjp.ac.lk



Prof. Danushika Manatunga
BSc. (Hons) (Colombo), PhD (Colombo), Post-Doctoral Fellow (CAMD, Colombo) M.I. Biol (Sri Lanka), Visiting Researcher (UCL School of Pharmacy, University College London)
Professor
Research interests: Transdermal drug delivery via smart nanomaterials, Development of new formulations for the controlled release of natural compounds with antioxidant and cancer preventive properties, Use of nanomaterials for pH sensor development, Nanocosmetics, Electrospun smart fabrics and wound dressings, Magnetic nanomaterials for drug delivery, Transfection and water purification and Hydrophobic textile development via nanoparticles
E-mail: danushi@sjp.ac.lk



Prof. Asanka Sanjeewa
BSc. Agriculture (Hons) (Rajarata), MSc. (Jeju National University, South Korea), PhD. (Jeju National University, South Korea), Post-Doctoral Fellow (Jeju National University, South Korea)
Professor
Research interests: Marine bioactive secondary metabolites, Functional foods and cosmeceuticals research, in vivo and in vitro Cell Signalling mechanisms.
E-mail: asanksanjeewa@sjp.ac.lk

Academic Staff

Department of Biosystems Technology



Prof. W. P. Kaushalya M. Abeysekera

BSc. (Hons) (Colombo), PGDBM (Colombo), PhD (Colombo), M.I. Biol (Sri Lanka)

Professor

Research interests: Bioactive natural products/spices/foods, Nutraceuticals cosmeceuticals, Herbal technology

E-mail: kaushalyaabey@sjp.ac.lk



Dr. D. J. Jayasanka

BSc. (Hons) (Ruhuna), MSc. (Ruhuna), PhD (Tokyo University of Agriculture and Technology, Japan)

Senior Lecturer Gr. II

Research interests: Composing, Irrigation and water management, Biochar and soil amendments, Farm power and mechanization, and Automation in agriculture

E-mail: dkjjayasanka@sjp.ac.lk



Dr. Amali Alahakoon

BSc. Agri. Tech. and Mgt. (Hons) (Peradeniya), MSc. (South Korea), PhD (University of Otago, New Zealand)

Senior Lecturer Gr. II

Research interests: Animal product processing (meat, dairy, aqua products), Thermal and non-hermal food processing technologies, Functional food products development

E-mail: amalialahakoon@sjp.ac.lk

Academic Staff

Department of Biosystems Technology



Dr. Ruvini Abhayapala

BSc. Agri. (Hons) (Rajarata), MSc. (Peradeniya), PhD (Peradeniya)

Senior Lecturer Gr. II

Research interests: Horticulture, Agronomy, Climate change and crop production, Plant tissue culture, and Plant and soil nutrient management

E-mail: ruvinidil@sjp.ac.lk



Dr. (Eng.) Pasan Chinthana Bandara

BSc. (Hons) Eng. (Peradeniya), PhD (Houston, USA)

Senior Lecturer Gr. II

Research interests: Process optimization, Sustainable systems and processes, Alternative drinking water and wastewater treatment techniques and New product development

E-mail: pasanb@sjp.ac.lk



Dr. Sumudu Mapa

BSc. (Hons) (Kelaniya), MPhil. (Kelaniya), MSc. (Wichita State University, USA), PhD (Wichita State University, USA), Post-Doctoral Fellow (Food and Drug Administration, USA)

Senior Lecturer Gr. II

Research interests: Food toxicology, Enzyme kinetics, In vitro cultures, Confocal and fluorescence microscopy imaging, Neurotoxin and neurodegenerative disease

E-mail: sumudu.mapa@sjp.ac.lk

Academic Staff

Department of Biosystems Technology



Dr. Sankalya Ambagaspitiya
BSc. (Hons) (Colombo), MSc. (USA), PhD (USA)
Senior Lecturer Gr. II

Research interests: Soil microbiology, Rhizosphere microorganisms, Endophytes in medicinal plants, Beneficial role of vitamin D, Role of urobiome in diseases of the urinary tract

E-mail: sankalya@sjp.ac.lk



Dr. H. K. B. S. Chamara
BSc. Agri. Tech. & Mgt. (Hons) (Peradeniya), MSc. Plant Protection (Peradeniya), PhD Agronomy (Peradeniya & International Rice Research Institute, Philippines)
Senior Lecturer Gr. II

Research interests: Precision agriculture for crop production, climate change adaptation and food security, abiotic and biotic stress management in crops, crop physiology and modelling, and weed science and sustainable weed management.

E-mail: bschamara@sjp.ac.lk



Dr. Pradeep Gajanayake
BSc. Agri. Tech. and Mgt. (Hons) (Peradeniya), MPhil. (Peradeniya), PhD (Env. Eng., Saitama University, Japan), Dip. (Sports Medi., Faculty of Medicine, Peradeniya), CEnvP (IEPSL), GREENSL®Accp (GBCSL), MSLIAg, M.OPASL

Senior Lecturer Gr. II

Research interests: Wastewater treatment, Microplastic pollution, Solid waste management, Green agriculture, Waste value addition, Green rating systems development.

E-mail: pradeepgajanayake@sjp.ac.lk

Academic Staff

Department of Biosystems Technology



Dr. Udayagee Kumarasinghe

BSc. Agri. Tech. and Mgt. (Hons) (Peradeniya), MSc. (Peradeniya), PhD (Japan)

Senior Lecturer Gr. II

Research interests: Circular economy, Waste management, Environmental pollution and remediation, Water quality

E-mail: udayagee@sjp.ac.lk



Dr. G.L. Rumesch Prasanga

BSc. (Hons) (Sri Jayewardenepura), PhD (Sri Jayewardenepura)

Senior Lecturer Gr. II

Research interests: Emerging food processing technology, Product development and value addition, Tea processing technologies and Ingenious food processing technologies

E-mail: rumeschliyanage@sjp.ac.lk



Dr. Chathuri Senanayake

BSc. (Hons) (Sri Jayewardenepura), PhD (Kelaniya)

Senior Lecturer Gr. II

Research interests: In vitro and in vivo antioxidant activity, Application of natural antioxidants in extending the shelf life of foods, Edible coating and films, and Essential oils and oleoresins extraction

E-mail: chathurisnnk@sjp.ac.lk

Academic Staff

Department of Biosystems Technology



Dr. D.W.M.M.M Kumari

BSc. Agri. Tech. & Mgt. (Hons) (Peradeniya), MSc. in Food Science and Technology (Peradeniya), PhD in Food Science (Philippines)

Senior Lecturer Gr. II

Research interests: Functional foods, Food product development, Food and nutrition

E-mail: madhubhashini@sjp.ac.lk



Dr. Gayathri De Silva

B.Sc. Eng. (Chem. and Pro. Eng.) (Moratuwa), M.Sc. (Sustainable Process Development) (Moratuwa), Ph.D. (Moratuwa)

Senior Lecturer Gr. II

Research Interests: Food Engineering, Bio-process Engineering, thermal processing, non-thermal processing

E-mail: gayathrids@sjp.ac.lk



Dr. Neelaka Molagoda

BSc. Agri. (Hons) (Peradeniya), MSc. (Jeju National University, South Korea), PhD. (Jeju National University, South Korea), Postdoc. (Jeju National University, South Korea), Postdoc. (Lund University, Sweden)

Senior Lecturer Gr. II

Research interests: Immunology and cell signalling, Cardiovascular disease, Pre-clinical drug development using mammalian cell culture and in-vitro techniques, Vertebrate disease models (zebrafish and mouse), Plant protection

E-mail: neelakagm2012@gmail.com

Academic Staff

Department of Biosystems Technology



Ms. Kaushika Seelanatha

BSc.(Hons) in Agriculture (Wayamba)

Lecturer (On contract)

Research interests: Agricultural economics, Environmental economics, Hydrological modelling, Climate change and disaster management, Marketing management

E-mail: kaushiseelanatha@sjp.ac.lk

Non-Academic Staff

Ms. W. P. T. Thathsarani
Technical Officer Grade I

Mrs. W. G. D. H. Perera
Technical Officer Grade II A

Mrs. S. G. P. Priyadarshani
Technical Officer Grade II A

Mrs. A. K. A. S. S. de Alwis
Technical Officer Grade II B

Ms. P. S. S. de Silva
Technical Officer Grade II B

Mrs. K. D. K. S. Dharmasena
Technical Officer Grade II B

Mrs. T. P. Egodapitiya
Technical Officer Grade II

Mr. H. G. C. Prasanna
Lab Attendant (Super Grade)

Mr. E. M. I. Rajitha
Lab Attendant III

Mrs. Disna Manel Furnandus
Lab Attendant III

Mrs. D. U. Thiranagama
Lab Attendant III

Department of Biosystems Technology

Mrs. I. A. Priyadarshani
Snr. Staff Management Assistant

Mr. W. D. J. Madhubhashana
Works Aid

Department of Information and Communication Technology

The Department of Information and Communication Technology strives to graduate highly innovative, creative, and industry-focused students with a Bachelor of Information and Communication Technology (BICT) Honours Degree. The primary focus of the Department is to produce skillful, knowledgeable, and competent graduates who can cater to the demand for Computing and IT-related professions across boundaries. The Department produces graduates in the following specializations:

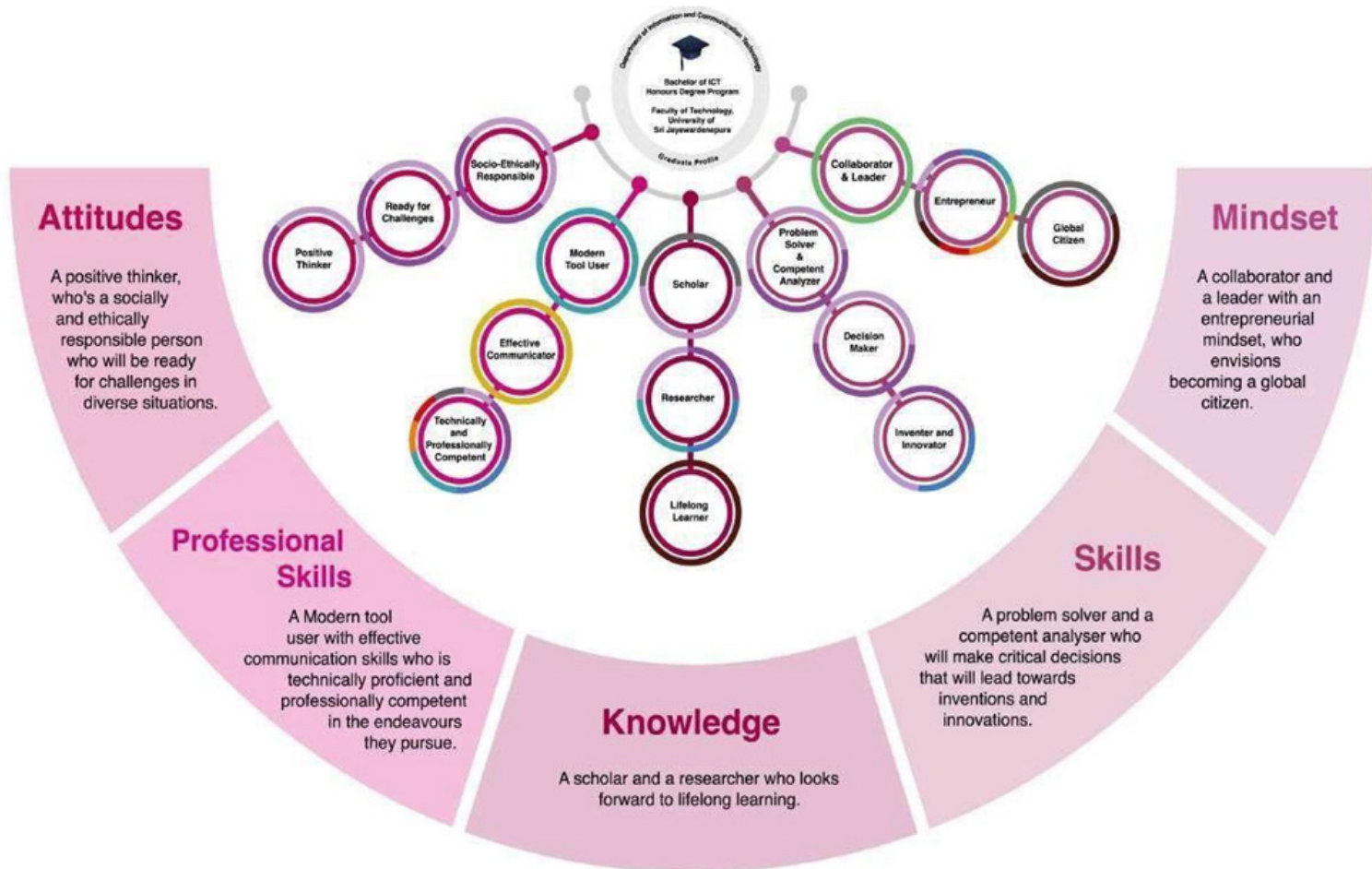
- Software Technology
- Network Technology
- Multimedia Technology

These students will have the opportunity to enroll in one of three aforementioned specializations at the beginning of the third year, based on their preference and academic performance in the first year of study. BICT Honours Degree is a full-time four-year professional degree program. The Department accommodates an annual intake of 163 prospective undergraduates for the BICT Honours Degree. Students who followed Information and Communication Technology subject at the GCE (A/L) Examination in Technology stream are eligible to apply for this degree program. The Department is in the process of aligning its BICT Honours Degree curriculum with the Seoul Accord, an international accred

itation agreement for professionals in Computing and IT-related academic degree programs.

The first two years of the degree program provide the undergraduates with necessary skills such as Mathematics, Statistics, Communication skills together with Information and Communication Technology-oriented subjects. Undergraduates are mainly offered the subject modules for their respective specializations from the third year of study. After acquiring both practical and theoretical knowledge during the initial six semesters, undergraduates are mandated to undertake a full-time six-month industrial training in an organization during their seventh semester. The research project module, comprising six credits, is scheduled for initiation in the seventh semester and complete by the end of the eighth semester. The project provides undergraduates with an excellent opportunity to sharpen their professional, academic and essential skills which are required by prospective employers. To successfully graduate, students should complete all coursework modules, industrial training and the final year research project by the end of the eighth semester.

Graduate Profile - Bachelor of Information and Communication Technology Honours Degree



Programme Learning Outcomes - Bachelor of Information and Communication Technology Honours Degree Programme

- PLO1: Academic education: Completion of an accredited programme of study designed to prepare graduates as computing professionals.
- PLO2: Knowledge for solving computing problems: Ability to apply knowledge of a computing specialization and mathematics and domain knowledge appropriate for the computing specialization to the abstraction and conceptualization of computer models from defined problems and requirements.
- PLO3: Problem analysis: Identify and solve complex problems reaching substantial conclusions using principles of mathematics, computing sciences and relevant domain disciplines.
- PLO4: Design/Development: Design and evaluate solutions for complex computing problems, and design evaluate systems, components, or processes that meet specified needs.
- PLO5: Modern tool usage: Create, select or adapt and apply appropriate techniques, resources and modern computing tools to complex computing activities, with an understanding of the limitations.
- PLO6: Individual and team work: Function effectively as an individual and as a member or leader of a team in multidisciplinary settings.
- PLO7: Communication: Communicate effectively with the computing community about complex computing activities by being able to comprehend and write effective reports, design documentation, make effective presentations, give and understand clear instructions.
- PLO8: Computing professionalism and society: Understand and assess societal, health, safety, legal, and cultural issues within local and global contexts, and the consequential responsibilities relevant to professional computing practice.
- PLO9: Ethics: Understand and commit to professional ethics, responsibilities, and norms of professional computing practice.
- PLO10: Life-long learning: Recognize the need and have the ability to engage in independent learning for continual development as a computing professional.

Year 01 - Common Modules

Semester 01

| <i>Module code</i> | <i>Module title</i> |
|--------------------|--|
| ISC1013 | Mathematics I |
| ISC1033 | Physics for Technology |
| ISC1022 | Principles of Statistics |
| IIC1042 | Software Engineering I |
| IIC1053 | Fundamentals of Programming |
| ISC1062 | Communication Skills I / English |
| ISC1071 | Ethical Conduct of Learners* |
| IIC1082 | Computer Organization and Architecture |

Semester 02

| <i>Module code</i> | <i>Module title</i> |
|--------------------|-------------------------------------|
| ISC1092 | Mathematics II |
| ISC1102 | Statistical Methods |
| IIC1113 | Object Oriented Analysis and Design |
| IIC1123 | Database Systems |
| ISC1142 | Communication Skills II / English |
| ISC1131 | Personality Development* |
| IIC1153 | Object Oriented Programming |

Year 02 - Common Modules

Semester 03

| <i>Module code</i> | <i>Module title</i> |
|--------------------|--------------------------------|
| ISC2162 | Mathematics for ICT |
| IIC2172 | Data Structures and Algorithms |
| IIC2183 | Networking Essentials |
| IIC2192 | Operating Systems |
| IIC2203 | Visual Application Programming |
| IIC2212 | Fundamentals of Multimedia |

Semester 04

| <i>Module code</i> | <i>Module title</i> |
|--------------------|---|
| IIC2223 | Web Application Development |
| IIC2223 | Web Application Development |
| IIC2232 | Introduction to Machine Learning |
| IIC2242 | Advanced Data Structures and Algorithms |
| IIC2252 | Digital Control Systems Technology |
| IIC2262 | Network Systems Design |
| IIC2273 | Introduction to Graphic Design |
| ISC2282 | Economics and Financial Management |

NOTE:* Non-GPA module (NGPA)

Year 03 - Software Technology

Semester 05

| <i>Module code</i> | <i>Module title</i> |
|--------------------|--|
| IIC3293 | Service Oriented Architecture and Web Services |
| IIC3303 | Human Computer Interaction |
| IIC3312 | Literature Study and Presentation |
| IIC3322 | Project Management |
| IIC3331 | Professional Ethics* |
| IIC3341 | ICT Project |
| IIS3353 | Advanced Database Systems |
| IIS3362 | Software Engineering II |

Semester 06

| <i>Module code</i> | <i>Module title</i> |
|--------------------|--|
| IIC3422 | Research Methods and Technical Writing |
| IIC3433 | Computer Security |
| IIC3443 | Software Quality Assurance |
| IIC3452 | Mobile Application Development |
| IIN3462 | System Administration |
| IIS3472 | Software Deployment and Evolution |
| IIS3483 | Data Mining and Warehousing |

Year 04 - Software Technology

Semester 07

| <i>Module code</i> | <i>Module title</i> |
|--------------------|---------------------|
| IIC4546 | Industrial Training |
| IIC4556 | Research Project |

Semester 08

| <i>Module code</i> | <i>Module title</i> |
|--------------------|--|
| ISC4562 | Entrepreneurship and Small Business Management |
| IIC4556 | Research Project (Continued) |
| IIC4572 | Professional Practices in ICT |
| IIC4582 | Information Systems Strategy and IT Governance |
| IIS4593 | Microservices and Cloud Computing |
| IIS4602 | Emerging Technologies |

NOTE:* Non-GPA module (NGPA)

Year 03 - Network Technology

Semester 05

| <i>Module code</i> | <i>Module title</i> |
|--------------------|--|
| IIC3293 | Service Oriented Architecture and Web Services |
| IIC3303 | Human Computer Interaction |
| IIC3312 | Literature Study and Presentation |
| IIC3322 | Project Management |
| IIC3331 | Professional Ethics* |
| IIC3341 | ICT Project |
| IIS3353 | Advanced Database Systems |
| IIN3372 | Advanced Networking |
| IIN3382 | Wireless Communication |

Semester 06

| <i>Module code</i> | <i>Module title</i> |
|--------------------|--|
| IIC3422 | Research Methods and Technical Writing |
| IIC3433 | Computer Security |
| IIC3443 | Software Quality Assurance |
| IIC3452 | Mobile Application Development |
| IIN3462 | System Administration |
| IIN3492 | Advanced Mobile Technologies |
| IIN3502 | Distributed Networks |

Year 04 - Network Technology

Semester 07

| <i>Module code</i> | <i>Module title</i> |
|--------------------|---------------------|
| IIC4546 | Industrial Training |
| IIC4556 | Research Project |

Semester 08

| <i>Module code</i> | <i>Module title</i> |
|--------------------|--|
| ISC4562 | Entrepreneurship and Small Business Management |
| IIC4556 | Research Project (Continued) |
| IIC4572 | Professional Practices in ICT |
| IIC4582 | Information Systems Strategy and IT Governance |
| IIN4612 | Advanced Topics in Networking |
| IIN4622 | Network Security |

NOTE: * Non-GPA module (NGPA)

Year 03 - Multimedia Technology

Semester 05

| <i>Module code</i> | <i>Module title</i> |
|--------------------|--|
| IIC3293 | Service Oriented Architecture and Web Services |
| IIC3303 | Human Computer Interaction |
| IIC3312 | Literature Study and Presentation |
| IIC3322 | Project Management |
| IIC3331 | Professional Ethics* |
| IIC3341 | ICT Project |
| IIM3402 | Video Production Techniques |
| IIM3392 | Audio Production Techniques |
| IIM3412 | Image Processing |

Semester 06

| <i>Module code</i> | <i>Module title</i> |
|--------------------|--|
| IIC3422 | Research Methods and Technical Writing |
| IIC3433 | Computer Security |
| IIC3443 | Software Quality Assurance |
| IIC3452 | Mobile Application Development |
| IIM3512 | Gaming Technology |
| IIM3522 | 3D Modeling |
| IIM3532 | Digital Marketing |

Year 04 - Multimedia Technology

Semester 07

| <i>Module code</i> | <i>Module title</i> |
|--------------------|---------------------|
| IIC4546 | Industrial Training |
| IIC4556 | Research Project |

Semester 08

| <i>Module code</i> | <i>Module title</i> |
|--------------------|--|
| ISC4562 | Entrepreneurship and Small Business Management |
| IIC4556 | Research Project (Continued) |
| IIC4572 | Professional Practices in ICT |
| IIC4582 | Information Systems Strategy and IT Governance |
| IIM4633 | Immersive Technologies |
| IIM4642 | Animation Technology |

NOTE:* Non-GPA module (NGPA)

Academic Staff

Department of Information and Communication Technology



Dr. (Mrs.) P. L. M. Prabhani

BSc. (Sri Jayewardenepura), MSc. (Colombo), D.Eng. (Shimane, Japan), SMIEEE

Head of the Department, Senior Lecturer Gr. II

Research interests: Educational Data Mining, Machine Learning, Visual Programming, Database Systems, E-Learning

E mail: prabani@sjp.ac.lk



Dr. Nalaka Lankasena

BSc. (Colombo), Pg.Dip.(Colombo), MSc. (Moratuwa), PhD. (Colombo), MCS(SL), MCIM(UK)

Senior Lecturer Gr. I

Research interests: IT governance and E-Governance, Artificial Intelligence, Genetic Algorithm, ICT4D, Enterprise Architecture, OOAD and Software Engineering, Data Science and Big Data

E mail: nalaka@sjp.ac.lk



Dr. Pulasthi Gunawardhana

BSc. (Middlesex, UK), MSc. (Kent, UK), PhD. (Malaysia University of Science and Technology, Malaysia)

Senior Lecturer Gr. II

Research interests: Gaming Technology, Social Sensor Networks, Video Technologies, New Media and Human Psychology Behaviour, Web Technologies, E-learning and Educational Technologies

E mail: pulasthi@sjp.ac.lk

Academic Staff

Department of Information and Communication Technology



Dr. D. L. Chamara Pramod Liyanage
BSc. (Wayamba), MSc. (Nagaoka, Japan), PhD. (Nagaoka, Japan)
Senior Lecturer Gr. II
Research interests: Machine Learning, AI, Data Science
E mail: dlchamara@sjp.ac.lk



Dr. Nuwan Kuruwitaarachchi
BSc. (Hons) (Sheffield Hallam, UK), MSc. (SLIIT), MBA (PIM), PhD. (Management & Science University, Malaysia)
Senior Lecturer Gr. II
Research interests: Wireless Systems, Computer Networking, E-commerce, ICT for Development
E mail: kuruwita@sjp.ac.lk



Dr. A. A. M. Mateeh
BSc. (Hons) (Sheffield Hallam, UK), MSc. (University of Greenwich, UK), PhD. (Management & Science University, Malaysia)
Senior Lecturer Gr. II
Research Interest: Cloud Computing, Cyber Security, Computer Forensics, Network
E mail : matheeh@sjp.ac.lk

Academic Staff

Department of Information and Communication Technology



Mr. Chamila Karunatilake
BSc. IT (Hons) (Moratuwa), MSc. (Aizu, Japan)
Lecturer

Research interests: Music Information Retrieval, Artificial Neural Networks and Deep Learning, Machine Learning, Image and Video Processing

E mail: chamilakarunatilake@sjp.ac.lk



Mrs. E. A. Jayamuthu Sandamali Edirisinghe
B.Des (Hons) (Moratuwa), M.Des. (IITB, India)
Lecturer (Probationary)

Research interests: Visual Literacy, Infographics and Data Visualisation, Visual Narration, Publication Design, UI Design, Design Pedagogy

E mail: jayamuthu@sjp.ac.lk



Mrs. Sankani Heenkenda
BSc. (Hons) (Jaffna), MIEEE
Lecturer (Probationary)

Research interests: Machine Learning, Computational Archaeology, Bioinformatics and Computational Biology

E mail: sankaniheenkenda@sjp.ac.lk

Academic Staff

Department of Information and Communication Technology



Mr. Akalanka Panapitiya
BICT (Hons) (Sri Jayewardenepura)
Lecturer (Probationary)

Research Interests: Immersive Technologies, Computer Vision, Human-Centred Computing, Gamification, Multimedia Technologies

E mail: akalankap@sjp.ac.lk



Ms. Nirasha Kulasooriya
BICT (Hons) (Sri Jayewardenepura)
Lecturer (On - Contract)

Research Interest: Acoustic Signal Processing, Side Channel Attacks, Machine Learning, Deep Learning

E mail: nirashakulasooriya@sjp.ac.lk



Ms. Hansamali Paul
BICT (Hons) (Sri Jayewardenepura)
Lecturer (On - Contract)

Research Interest: Computational Neuroscience, Signal Processing, Machine Learning, Deep Learning

E mail: hansamalipaul@sjp.ac.lk

Academic Staff

Department of Information and Communication Technology



Ms.K.K.Upeksha Madhu Hansani
BICT (Hons) (Sri Jayewardenepura), PGDE in IT(SLIIT), MSc in IT(SLIIT)
Lecturer (On-Contract)
Research interest: Machine Learning, Cyber Security, IoT
E mail: upekshahansani@sjp.ac.lk



Mr.Dinusha Malshan Perera
BICT (Hons) (Sri Jayewardenepura), MSc in IT(SLIIT), PGDE in IT(SLIIT)
Lecturer (On-contract)
Research Interests: Machine Learning, Cyber Security, Wireless Communication and IoT
E mail: dinushamalshan@sjp.ac.lk

Non-Academic Staff

Mr. K. A. M. J. B.Samarakoon
Technical Officer (Gr. III)

Mr. H. S. L. Karunarathne
Technical Officer (Gr. III)

Mrs. P. A. M. K. Pahuruthota
Management Assistant (Gr. I)

Mr. M. G. U. Sanka
Lab Attendant (Gr. III)

Mr. W. M. R. W. R. S. B. Welivita
Lab Attendant (Gr. III.)

Department of of Information and Communication Technology

Department of Civil and Environmental Technology

The Department of Civil and Environmental Technology (DCET) was established in 2020 with a view to equip students with the knowledge and skills needed for world-class Civil and Environmental Technology practice. The department offers the Bachelor of Engineering Technology Honours degree, where students can choose from one of three specializations for in-depth study: Construction and Building Services Technology, Energy and Environmental Technology, and Geotechnology. The curricula are guided by the Institution of Engineers Sri Lanka (IESL) Engineering Technology Degree Program Accreditation manual 2022, which based on Sydney accord of International Engineering Alliance. This accreditation manual is based on the Sydney Accord and provides students with a rigorous foundation in theory and the practical as well as hands-on experience required for them to succeed in the industry as an Engineering Technologist.

The DCET accommodate approximately 90 students in each year to aforementioned specializations. The selection of these specializations of study will be based on students' preferences and performances within the first year. Modules in the programme are multidisciplinary in nature, combining Mathematics, Science, and Engineering fundamentals, as well as essential tools and skills for an Engineering technologist.

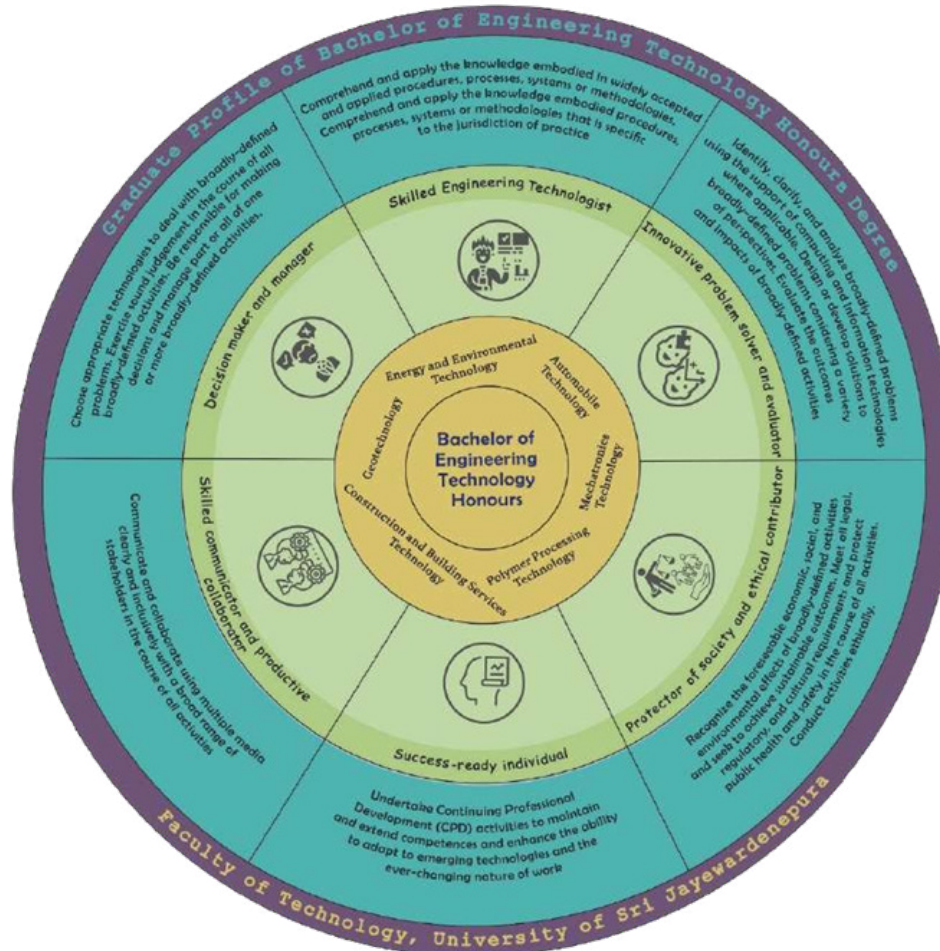
- The first year of study is dedicated to provide the undergraduates with necessary knowledge in basic sciences, pure and applied mathematics, basic computing and communication skills together with the Engineering Technology oriented modules and offered by the Department of Science for Technology.
- From second year onwards, undergraduates will be offered the modules for their respective specialization.
- In the third year, undergraduates undertake their specialization modules during the first semester and in the second semester, they complete a twenty-four (24) week period of Industrial Training, which is coordinated by the National Apprentice and Industrial Training Authority (NAITA).
- In the fourth year, undergraduates are expected to complete a Final Year Project together with other modules offered, including elective modules.

Accreditation of Three Specialisations

- The BET Honours in Energy and Environmental Technology degree programme conducted by the DCET received the “Full Accreditation” (intake years from 2017 to 2027) from the Institution of Engineers Sri Lanka (IESL) based on the Sydney Accord graduates attributes defined by the International Engineering Alliance (IEA).
- The BET Honours in Construction and Building Services Technology degree programme conducted by the DCET received the “Conditional Accreditation” (intake years from 2017 to 2024) from the Institution of Engineers Sri Lanka (IESL) based on the Sydney Accord graduates attributes defined by the International Engineering Alliance (IEA).
- The BET Honours in Geotechnology degree programme conducted by the DCET, in under preparation of accreditation application as per the guidelines from the Institution of Engineers Sri Lanka (IESL) based on the Sydney Accord graduates attributes defined by the International Engineering Alliance (IEA) and the accreditation will be processed soon.



Graduate Profile - Bachelor of Engineering Technology Honours Degree



Programme Learning Outcomes - Bachelor of Engineering Technology Honours Degree Programme

- PLO1: Engineering Knowledge: Apply knowledge of mathematics, natural science, engineering fundamentals and an engineering specialization as specified for the sub-discipline to defined and applied engineering procedures, processes, systems or methodologies.
- PLO2: Problem Analysis: Identify, formulate, research literature and analyze broadly defined engineering problems reaching substantiated conclusions using analytical tools appropriate to the sub-discipline or area of specialization.
- PLO3: Design/Development of Solutions: Design solutions for broadly-defined engineering technology problems and contribute to the design of systems, components or processes to meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations.
- PLO4: Investigations: Conduct investigations of broadly-defined problems; locate, search and select relevant data from codes, data bases and technological literature, design and conduct experiments to provide valid conclusions.
- PLO5: Modern Tool Usage: Select and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling, to broadly-defined engineering problems, with an understanding of the limitations.
- PLO6: The Engineer and Society: Demonstrate understanding of the societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to engineering technology practice and solutions to broadly defined engineering problems.

- PLO7: Environment and Sustainability: Understand and evaluate the sustainability and impact of engineering technology work in the solution of broadly defined engineering problems in societal and environmental contexts.
- PLO8: Ethics: Understand and commit to professional ethics and responsibilities and norms of engineering technology practice.
- PLO9: Individual and Teamwork: Function effectively as an individual, and as a member or leader in diverse teams.
- PLO10: Communication: Communicate effectively on broadly defined engineering activities with the engineering community and with society at large, by being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- PLO11: Project Management and Finance: Demonstrate knowledge and understanding of engineering management principles and apply these to one's own work, as a member or leader in a team and to manage projects in multidisciplinary environments.
- PLO12: Lifelong Learning: Recognize the need for, and have the ability to engage in independent and life-long learning in specialist technologies.

Year 01 - Common Modules

Semester 01

| <i>Module code</i> | <i>Module title</i> |
|--------------------|----------------------------------|
| ESC1013 | Mathematics I |
| ESC1022 | Principles of Statistics |
| ESC1032 | Physics for Technology I |
| ESC1043 | Chemistry for Technology |
| EIC1052 | Computing for Technology |
| ESC1062 | Communication Skills I / English |
| ESC1071 | Technology Project* |
| ESC1082 | Engineering Drawing |

Semester 02

| <i>Module code</i> | <i>Module title</i> |
|--------------------|--------------------------------------|
| ESC1092 | Mathematics II |
| ESC1103 | Statistical Methods |
| ESC1112 | Physics for Technology II |
| ESC1122 | Theory of Electricity |
| ESC1133 | Mechanics |
| ESC1142 | Communication Skills II / English |
| EIC1152 | Introduction to Computer Programming |

NOTE:* Non-GPA module (NGPA)



Year 02 - Construction And Building Services Technology

Semester 03

| <i>Module code</i> | <i>Module title</i> |
|--------------------|------------------------------------|
| ESC2012 | Mathematics III |
| EIC2021 | Fundamentals of ICT |
| ESC2032 | Economics and Financial Management |
| ECC2043 | Thermodynamics |
| EMC2052 | Workshop Technology |
| EMC2112 | Applied Electronics |
| EMC2082 | Measurements and Instrumentation |
| ECC2091 | 3D-CAD Software Applications |
| ECC2102 | Construction Materials |

Semester 04

| <i>Module code</i> | <i>Module title</i> |
|--------------------|------------------------|
| ECC2192 | Fluid Mechanics |
| ECC2202 | Numerical Methods |
| ECC2213 | Mechanics of Materials |
| ECC2233 | Surveying |
| ECC2242 | Soil Mechanics |
| ECB2262 | Building Services I |
| ECB2272 | Quantity Surveying I |

Year 03 - Construction And Building Services Technology

Semester 05

| <i>Module code</i> | <i>Module title</i> |
|--------------------|--|
| ECC3011 | Occupational Health and Safety |
| ECC3032 | Multidisciplinary Design Project |
| ECC3042 | Construction Quality Management |
| ECB3072 | Building Services II |
| ECB3091 | Construction Machineries and Practices |
| ECB3102 | Highway Design and Construction |
| ECB3112 | Quantity Surveying II |
| ECB3123 | Structural Systems |

Semester 06

| <i>Module code</i> | <i>Module title</i> |
|--------------------|---------------------|
| ECB3416 | Industrial Training |

Year 04 - Construction And Building Services Technology

Semester 07

| <i>Module code</i> | <i>Module title</i> |
|--------------------|--|
| ECB4016 | Final Year Project (Cont. to Semester 8) |
| ESC4022 | Entrepreneurship and Small Business Management |
| ECC4032 | Project Management |
| EMC4041 | Research Methodology |
| ECC4052 | Construction Estimation and Procurement |
| ECB4062 | Energy Management |
| ECB4072 | Geotechnical Structures |
| ECB4082 | Sustainable Building Design and Construction |

Elective modules

| | |
|---------|---|
| ECB4242 | Concrete Technology [#] |
| ECG4252 | Surveying Applications and Geomatics [#] |

Year 04 - Construction And Building Services Technology

Semester 08

| <i>Module code</i> | <i>Module title</i> |
|--------------------|---|
| ECB4016 | Final Year Project (Cont. from Semester 7) |
| EMC4362 | Professional Development and Ethics* |
| EMC4371 | Intellectual Property Rights and Industrial Law |
| ECC4381 | Contract Law and Dispute Resolution |
| ECB4402 | Building Economics |
| ECB4412 | Building Instrumentation and Automation |
| ECB4422 | Building Maintenance and Management |
| ECB4431 | Construction Technology Seminar |
| ECB4442 | Urban Water Supply and Drainage Technology |

NOTE:* Non-GPA module (NGPA).

Minimum 10 student registrations are required.

Year 02 - Energy And Environmental Technology

Semester 03

| <i>Module code</i> | <i>Module title</i> |
|--------------------|--|
| ESC2012 | Mathematics III |
| EIC2021 | Fundamentals of ICT |
| ESC2032 | Economics and Financial Management |
| ECC2043 | Thermodynamics |
| EMC2052 | Workshop Technology |
| EMC2061 | Computer Aided Designing |
| EMC2082 | Measurements and Instrumentation |
| EMC2112 | Applied Electronics |
| ECE2122 | Technology for Sustainable Environment |

Semester 04

| <i>Module code</i> | <i>Module title</i> |
|--------------------|---|
| ECC2192 | Fluid Mechanics |
| ECC2202 | Numerical Methods |
| EMC2222 | Manufacturing Technology |
| ECE2281 | Biomass Energy Technology |
| ECE2293 | Energy Efficiency and Conservation Techniques |
| ECE2302 | Energy Storage Devices |
| ECE2312 | Plant Design and Process Control |
| ECE2322 | Solid and Hazardous Waste Management Technology |

Year 03 - Energy And Environmental Technology

Semester 05

| <i>Module code</i> | <i>Module title</i> |
|--------------------|---|
| ECC3011 | Occupational Health and Safety |
| EMC3022 | Industrial Quality Management |
| ECC3032 | Multidisciplinary Design Project |
| ECE3132 | Analytical Techniques in Environmental Technology |
| ECE3142 | Energy Auditing |
| ECE3152 | Power Systems |
| ECE3162 | Process Equipment Design |
| ECE3172 | Solar Energy and Solar Cells |
| ECE3182 | Water and Wastewater Treatment Technology |

Semester 06

| <i>Module code</i> | <i>Module title</i> |
|--------------------|---------------------|
| ECE3416 | Industrial Training |

Year 04 - Energy And Environmental Technology

Semester 07

| <i>Module code</i> | <i>Module title</i> |
|--------------------|--|
| ECE4016 | Final Year Project (Cont. to Semester 8) |
| ECS4022 | Entrepreneurship and Small Business Management |
| ECC4032 | Project Management |
| EMC4041 | Research Methodology |
| ECE4092 | Air Pollution Control Technology |
| ECE4102 | Environmental Data Analysis |
| ECE4112 | Environmental Remediation Technology |
| ECE4122 | Wind and Ocean Energy Technology |

Elective modules

| | |
|---------|---|
| ECE4262 | Environmental Informatics [#] |
| EME4272 | Polymer Technology [#] |
| ECE4282 | Nanotechnology for Energy and Environmental Applications [#] |

Year 04 - Energy And Environmental Technology

Semester 08

| <i>Module code</i> | <i>Module title</i> |
|--------------------|---|
| ECE4016 | Final Year Project (Cont. from Semester 7) |
| EMC4362 | Professional Development and Ethics* |
| EMC4371 | Intellectual Property Rights and Industrial Law |
| ECE4452 | Accounting for Climate Change |
| ECE4461 | Environmental Law, Policy and Education |
| ECE4472 | Environmental Economics and Assessment |
| ECE4482 | Industrial Ecology and Circular Economy |
| ECE4492 | Urban Design and Green Building Technology |
| ECB4442 | Urban Water Supply and Drainage Technology |

NOTE:* Non-GPA module (NGPA).

Minimum 10 student registrations are required.

Year 02 - Geotechnology

Semester 03

| <i>Module code</i> | <i>Module title</i> |
|--------------------|--|
| ESC2012 | Mathematics III |
| EIC2021 | Fundamentals of ICT |
| ESC2032 | Economics and Financial Management |
| ECC2043 | Thermodynamics |
| EMC2052 | Workshop Technology |
| ECC2091 | 3D-CAD Software Applications |
| ECC2102 | Construction Materials |
| ECG2133 | Introduction to Geology |
| ECG2142 | Introduction to Mechanics of Materials |

Semester 04

| <i>Module code</i> | <i>Module title</i> |
|--------------------|-----------------------------|
| ECC2192 | Fluid Mechanics |
| ECC2202 | Numerical Methods |
| ECC2233 | Surveying |
| ECC2242 | Soil Mechanics |
| ECG2332 | Hydrology and Hydrogeology |
| ECG2342 | Materials and Structures |
| ECG2352 | Applied Geophysics |
| ECG2362 | Environmental Geotechnology |

Year 03 - Geotechnology

Semester 05

| <i>Module code</i> | <i>Module title</i> |
|--------------------|---|
| ECC3011 | Occupational Health and Safety |
| ECC3032 | Multidisciplinary Design Project |
| ECC3042 | Construction Quality Management |
| ECG3193 | Geotechnics |
| ECG3202 | Structural Elements |
| ECG3212 | Techniques for Sustainable Construction |
| ECG3222 | Geotechnical Site Investigations |
| ECG3232 | Remote Sensing and GIS |
| ECG3242 | Geological Hazards and Monitoring |

Semester 06

| <i>Module code</i> | <i>Module title</i> |
|--------------------|---------------------|
| ECG3416 | Industrial Training |

Year 04 - Geotechnology

Semester 07

| <i>Module code</i> | <i>Module title</i> |
|--------------------|--|
| ECG4016 | Final Year Project (Cont. to Semester 8) |
| ESC4022 | Entrepreneurship and Small Business Management |
| ECC4032 | Project Management |
| EMC4041 | Research Methodology |
| ECC4052 | Construction Estimation and Procurement |
| ECG4132 | Rock Mechanics |

Elective modules

| | |
|---------|---|
| ECB4082 | Sustainable Building Design and Construction [#] |
| ECB4242 | Concrete Technology [#] |
| ECG4252 | Surveying Applications and Geomatics [#] |

Year 04 - Geotechnology

Semester 08

| <i>Module code</i> | <i>Module title</i> |
|--------------------|--|
| ECG4016 | Final Year Project (Cont. from Semester 7) |
| EMC4362 | Professional Development and Ethics* |
| ECC4381 | Contract Law and Dispute Resolution |
| ECG4502 | Ground Improvement Techniques |
| ECG4512 | Foundation Technology |
| ECG4522 | Numerical Simulations for Geotechnology |
| ECG4532 | Creativity and Sustainable Innovation |
| ECG4542 | Structural Geology |

NOTE:* Non-GPA module (NGPA).

Minimum 10 student registrations are required.

Academic Staff

Department of Civil and Environmental Technology



Dr. (Eng.) G. B. Sakura

BSc. Eng. (Hons) (Ruhuna), PhD. (Hong Kong City Uni)

Head of the Department

Senior Lecturer Gr. I

Research interests: Wind engineering, Air pollution modelling, Computational fluid dynamics applications and Building services

E mail: sakurabogoda@sjp.ac.lk



Prof. (Eng.) Asanka Weerasekara

BSc. Eng.(Hons)(Moratuwa), M.Eng (Kyungpook National), PhD. (Kyungpook National)

Professor

Research interests: s:Water and wastewater treatment, Air quality monitoring and modelling, Process optimization.

E mail: nuwanasanka@sjp.ac.lk



Dr. E. V. A. Premalal

BSc. Physics (Hons) (Peradeniya), MPhil. (Peradeniya), PhD. (Japan), Postdoc. (Japan)

Senior Lecturer Gr. I

Research interests: Synthesis and application of spinnable carbon nanotubes, Thin film solar cells, Battery and supercapacitors

E mail: vikum@sjp.ac.lk

Academic Staff

Department of Civil and Environmental Technology



Dr. (Eng.) T. C. Ekneligoda
BSc. (Hons) (Moratuwa), MSc. in (Sweden), MPhil. (Moratuwa), PhD. (Sweden)
Senior Lecturer Gr. I
Research Interest: Design of deep foundations, Modelling of porous materials, Modelling of Geothermal energy and underground coal gasification reservoirs, Carbon capturing and storing, Modelling of impact craters
E mail: ekneligoda@sjp.ac.lk



Dr. (Eng.) J. A. Darshika Wanigarathna
BSc. Eng. (Hons) (Peradeniya), MSc. Eng. (Peradeniya), PhD. (Nanyang Technological University, Singapore)
Senior Lecturer Gr. II
Research interests: Material design for industrial gas purification/ separation and Geo-environmental engineering
E mail: darshika@sjp.ac.lk



Dr. (Eng.) A. R. Nihmiya
BSc. Eng. (Hons) (Peradeniya), MSc. (Peradeniya), PhD. (UAEU)
Senior Lecturer Gr. II
Research interests: Energy conservation techniques, Renewable energy technologies, and Pollution control technologies
E mail: nihmiya@sjp.ac.lk

Academic Staff

Department of Civil and Environmental Technology



Dr. Choolaka Hewawasam

BSc. (Hons) (Moratuwa), MSc. (Japan), PhD. (Japan)

Senior Lecturer Gr. II

Research interests: Wastewater engineering and technologies, Solid waste management, Environment impact assessment and Sustainable energy sources and Energy conservation

E mail: choolaka@sjp.ac.lk



Dr. (Eng.) Sankha Widisinghe

BSc. Eng. (Hons) (Moratuwa), PhD. (James Cook University, Australia)

Senior Lecturer Gr. II

Research interests: Soil stabilization, Slope failure studies, Numerical modelling, Study of expansive soils, Geomechanics and Rock slope stability

E mail: sankha@sjp.ac.lk



Dr. (Eng.) T. Manori Perera

BSc. Eng. (Hons) (Moratuwa), PhD. (Moratuwa)

Senior Lecturer Gr. II

Structural mechanics, Innovative construction materials and Technologies, Indoor air quality, Environmental toxicology and Pollution monitoring, Healthy buildings and communities

E mail: manori@sjp.ac.lk

Academic Staff

Department of Civil and Environmental Technology



Dr. S. M. P. A. Koliyabandara

BSc. (Hons) Environmental Science (Sri Jayewardenepura), PhD. (Sri Jayewardenepura)

Senior Lecturer Gr. II

Research interests: Environmental remediation, Water quality and Sustainable Waste management

E mail: arundathi@sjp.ac.lk



Dr. (Eng.) N. Arosha Hemali

B. Sc. Eng (Hons) (Moratuwa), PhD (Moratuwa)

Senior Lecturer Gr. II

Research interests: Circular Economy and resource efficiency, Material symbiosis modeling, Waste Management, Energy Management

E mail: arosha.hemali@sjp.ac.lk



Mr. Dilan C. Ranaweera

BA. (Hons) (Peradeniya), MPhil. (Peradeniya)

Lecturer (Probationary)

Research interests: Sedimentology, Geoarchaeology, Chronology and Archaeometry, Quaternary studies and Archaeotechnology, and History and Philosophy of science and technology

E mail: kkdcranaweera@sjp.ac.lk

Academic Staff

Department of Civil and Environmental Technology



Mr. R.A.K.M Rajapaksha

BET (Hons) Construction and Building Services Technology (Sri Jayewardenepura)

Lecturer (Probationary)

Research Interests: Sustainable Construction Materials and Waste Valorization, Masonry Structural Systems and Performance Optimization, Construction Workforce Productivity and Management, Concrete Technology and Durability Engineering

E mail: kalanamr@sjp.ac.lk



Mr. (Eng.) S. Himanujahn

BTech Hons (Eng) (The Open University)

Lecturer (Probationary)

Research Interests: Hydrological Modelling in Ungauged Basins, Hydrology and Water Quality Modelling, Application of Soft Computing Techniques in Water Management, Solid Waste Management and Circular Economy, Climate Change, Environmental Sustainability and Geoenvironmental Engineering.

E mail: himanujahn@sjp.ac.lk



Mr. (Eng.) W.M.D. Priyankara

BSc. Eng (Hons) (Moratuwa)

Lecturer (Probationary)

Research interests: Determination of properties of rocks using indirect methods, Use of industrial by-products as alternative materials in geotechnical engineering applications, Modeling and designing retaining structures with pre-cast concretes.

E mail: dinalw@sjp.ac.lk

Academic Staff

Department of Civil and Environmental Technology



Mr. Ranga Bandara Weerasekara
BET (Hons) Energy and Environmental Technology (Sri Jayewardenepura)
Lecturer (On Contract)
Research Interests: Water and wastewater treatment, Bioenergy
E mail: rangabandara@sjp.ac.lk



Mr. Kusal C. Jayathilaka
BET (Hons) Construction and Building Services Technology (Sri Jayewardenepura)
Lecturer (On Contract)
Research Interests: Sustainable construction materials, Building Services, Construction Technology, Building Automation
E mail: kusaljayathilaka@sjp.ac.lk

Non-Academic Staff

Mrs. L. Rajika Warunakumari
Staff Technical Officer

Mrs. M. D. S. S. Jayathilake
Staff Technical Officer

Mr. E. M. A. C. Bandara
Technical Officer Gr. II A

Mr. G. L. U. S. Gunawardana
Technical Officer Gr. II A

Mr. K. G. Kodikara
Technical Officer Gr. II A

Mr. H. G. C Chaturanga
Technical Officer Gr. II B

Mrs. K. W. D. I. S. Wijesekera
Management Assistant Gr. II

Mr. M. D. M. S. B. Dissanayaka
Lab Attendant Gr. III

Mrs. W. A. P. N. Rodrigo
Lab Attendant Gr. III

Mrs. L. R. G. A. S. Senevirathna
Lab Attendant Gr. III

Mr. M.D.P. Madusanka
Works Aide Gr. III

Department of Civil and Environmental Technology

Department of Materials and Mechanical Technology

The Department of Materials and Mechanical Technology (DMMT) develops innovative graduates who are capable of solving engineering technology problems in industrial applications. In addition, the programme includes a social component that helps students understand the legal and ethical requirements of the industry and provides opportunities to specialise in Engineering Technology.

DMMT offers three specialisations: Automobile Technology, Mechatronics Technology, and Polymer Processing Technology which are interrelated by shared common modules to provide an integrated knowledge of technology. The DMMT will generally accommodate half of the students enrolled for the Bachelor of Engineering Technology (BET) Honours degree programme, where the specialisation selection process is based on personal preference and first year academic performance.

Contents of the Three Specialisation Programmes:

BET Honours degree programme offered for the three specialisations adhering to the Sydney Accord graduate attributes.

- The first year of study provides the undergraduates with necessary knowledge in basic sciences, pure and applied

mathematics, and basic computing skills together with the Engineering Technology oriented common modules.

- From the second year of study, undergraduates will be offered the modules for their respective specialisations of study.
- In the third year, undergraduates will be attending a twenty-four weeks Industrial Training coordinated by the NAITA along with the other modules.
- In the fourth year, undergraduates have to complete their Final Year Project along with other modules.

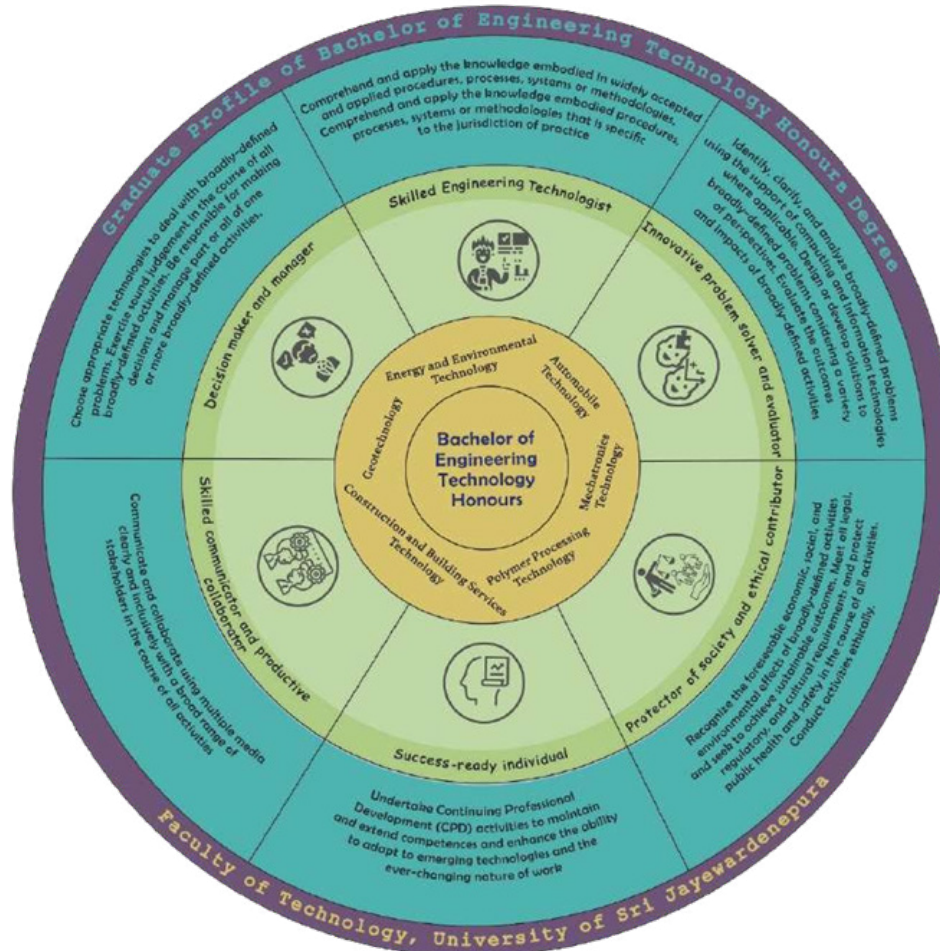
Accreditation of Three Specialisations:

- The BET Honours in Automobile Technology degree programme conducted by the DMMT received the “Full Accreditation” (intake years from 2017 to 2027) from the Institution of Engineers Sri Lanka (IESL) based on the Sydney Accord graduate attributes defined by the International Engineering Alliance (IEA).

- The BET Honours in Mechatronics Technology degree programme conducted by the DMMT received the “Conditional Accreditation” (intake years from 2017 to 2024) from the Institution of Engineers Sri Lanka (IESL) based on the Sydney Accord graduates attributes defined by the International Engineering Alliance (IEA).
- The BET Honours in Polymer Processing Technology degree programme conducted by the DMMT received the “Full Accreditation” (intake years from 2017 to 2027) from the Institution of Engineers Sri Lanka (IESL) based on the Sydney Accord graduates attributes defined by the International Engineering Alliance (IEA).



Graduate Profile - Bachelor of Engineering Technology Honours Degree



Programme Learning Outcomes - Bachelor of Engineering Technology Honours Degree Programme

- PLO1: Engineering Knowledge: Apply knowledge of mathematics, natural science, engineering fundamentals and an engineering specialization as specified for the sub-discipline to defined and applied engineering procedures, processes, systems or methodologies.
- PLO2: Problem Analysis: Identify, formulate, research literature and analyze broadly defined engineering problems reaching substantiated conclusions using analytical tools appropriate to the sub-discipline or area of specialization.
- PLO3: Design/Development of Solutions: Design solutions for broadly-defined engineering technology problems and contribute to the design of systems, components or processes to meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations.
- PLO4: Investigations: Conduct investigations of broadly-defined problems; locate, search and select relevant data from codes, data bases and technological literature, design and conduct experiments to provide valid conclusions.
- PLO5: Modern Tool Usage: Select and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling, to broadly-defined engineering problems, with an understanding of the limitations.
- PLO6: The Engineer and Society: Demonstrate understanding of the societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to engineering technology practice and solutions to broadly defined engineering problems.
- PLO7: Environment and Sustainability: Understand and evaluate the sustainability and impact of engineering technology work in the solution of broadly defined engineering problems in societal and environmental contexts.
- PLO8: Ethics: Understand and commit to professional ethics and responsibilities and norms of engineering technology practice.
- PLO9: Individual and Teamwork: Function effectively as an individual, and as a member or leader in diverse teams.
- PLO10: Communication: Communicate effectively on broadly defined engineering activities with the engineering community and with society at large, by being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- PLO11: Project Management and Finance: Demonstrate knowledge and understanding of engineering management principles and apply these to one's own work, as a member or leader in a team and to manage projects in multidisciplinary environments.
- PLO12: Lifelong Learning: Recognize the need for, and have the ability to engage in independent and life-long learning in specialist technologies.

Year 01 - Common Modules

Semester 01

| <i>Module code</i> | <i>Module title</i> |
|--------------------|----------------------------------|
| ESC1013 | Mathematics I |
| ESC1022 | Principles of Statistics |
| ESC1032 | Physics for Technology I |
| ESC1043 | Chemistry for Technology |
| EIC1052 | Computing for Technology |
| ESC1062 | Communication Skills I / English |
| ESC1071 | Technology Project* |
| ESC1082 | Engineering Drawing |

Semester 02

| <i>Module code</i> | <i>Module title</i> |
|--------------------|--------------------------------------|
| ESC1092 | Mathematics II |
| ESC1103 | Statistical Methods |
| ESC1112 | Physics for Technology II |
| ESC1122 | Theory of Electricity |
| ESC1133 | Mechanics |
| ESC1142 | Communication Skills II / English |
| EIC1152 | Introduction to Computer Programming |

NOTE:* Non-GPA module (NGPA)

Year 02 - Automobile Technology

Semester 03

| <i>Module code</i> | <i>Module title</i> |
|--------------------|------------------------------------|
| ESC2012 | Mathematics III |
| EIC2021 | Fundamentals of ICT |
| ESC2032 | Economics and Financial Management |
| ECC2043 | Thermodynamics |
| EMC2052 | Workshop Technology |
| EMC2061 | Computer Aided Design |
| ESC2072 | Properties of Materials |
| EMC2112 | Applied Electronics |
| EMA2152 | Introduction to Automobiles |

Semester 04

| <i>Module code</i> | <i>Module title</i> |
|--------------------|----------------------------|
| ECC2192 | Fluid Mechanics |
| ECC2202 | Numerical Methods |
| ECC2213 | Mechanics of Materials |
| EMC2222 | Manufacturing Technology |
| EMC2252 | Sensors and Applications |
| EMA2372 | Automotive Engines |
| EMA2382 | Mechanics of Machines |
| EMA2392 | Steering and Brake Systems |

Year 03 - Automobile Technology

Semester 05

| <i>Module code</i> | <i>Module title</i> |
|--------------------|--------------------------------------|
| EMC3022 | Industrial Quality Management |
| EMC3052 | Applied Hydraulics and Pneumatics |
| EMC3062 | Electrical Machines |
| EMA3252 | Automobile Design Project |
| EMA3262 | Automotive Electrics and Electronics |
| EMA3273 | Automotive Workshop and Safety |
| EMA3282 | Fuels and Lubrication |
| EMA3292 | Transmission Systems |

Semester 06

| <i>Module code</i> | <i>Module title</i> |
|--------------------|---------------------|
| EMA3416 | Industrial Training |

Year 04 - Automobile Technology

Semester 07

| <i>Module code</i> | <i>Module title</i> |
|--------------------|--|
| EMA4016 | Final Year Project (Cont. to Semester 8) |
| ESC4022 | Entrepreneurship and Small Business Management |
| ECC4032 | Project Management |
| EMC4041 | Research Methodology |
| EMA4142 | Automobile Air Conditioning |
| EMA4152 | Automotive Embedded Systems |
| EMA4162 | Vehicle Dynamics and Suspension |

Elective modules I[§]

| | |
|---------|---------------------------------------|
| EMA4292 | Alternative Fuels [#] |
| EMA4302 | Special Purpose Vehicles [#] |
| EMM4182 | MEMS and NEMS |

Year 04 - Automobile Technology

Semester 08

| <i>Module code</i> | <i>Module title</i> |
|--------------------|---|
| EMA4016 | Final Year Project (contd. from Semester 7) |
| EMC4362 | Professional Development and Ethics* |
| EMC4371 | Intellectual Property Rights and Industrial Law |
| EMC4392 | Power Electronics and Applications |
| EMA4552 | Automobile Safety |
| EMA4562 | Electric and Hybrid Vehicles |

Elective modules II[§]

| | |
|---------|--------------------------------------|
| EMM4582 | Machine Vision Systems |
| EMM4622 | Artificial Intelligence [#] |

NOTE:

* Non-GPA modules (NGPA).

§ Students must select one (1) module from the given elective modules in each semester.

These modules will be offered only if at least ten (10) students have registered.

Year 02 - Mechatronics Technology

Semester 03

| <i>Module code</i> | <i>Module title</i> |
|--------------------|---|
| ESC2012 | Mathematics III |
| EIC2021 | Fundamentals of ICT |
| ESC2032 | Economics and Financial Management |
| ECC2043 | Thermodynamics |
| EMC2052 | Workshop Technology |
| EMC2061 | Computer Aided Design |
| EMC2082 | Measurements and Instrumentation |
| ESC2072 | Properties of Materials |
| EMC2112 | Applied Electronics |
| EMM2161 | Introduction to Mechatronics Technology |

Semester 04

| <i>Module code</i> | <i>Module title</i> |
|--------------------|-----------------------------------|
| ECC2192 | Fluid Mechanics |
| ECC2202 | Numerical Methods |
| ECC2213 | Mechanics of Materials |
| EMC2222 | Manufacturing Technology |
| EMC2252 | Sensors and Applications |
| EMM2402 | Control Systems |
| EMM2412 | Embedded Systems and Applications |
| EMM2421 | Principles of Design |

Year 03 - Mechatronics Technology

Semester 05

| <i>Module code</i> | <i>Module title</i> |
|--------------------|--|
| ECC3011 | Occupational Health and Safety |
| EMC3022 | Industrial Quality Management |
| EMC3052 | Applied Hydraulics and Pneumatics |
| EMC3062 | Electrical Machines |
| EMM3303 | Dynamics of Mechanical Systems |
| EMM3312 | Graphical Programming and Visual Instrumentation |
| EMM3322 | Industrial Automation |
| EMM3332 | Mechatronics Design Project |

Semester 06

| <i>Module code</i> | <i>Module title</i> |
|--------------------|---------------------|
| EMM3416 | Industrial Training |

Year 04 - Mechatronics Technology

Semester 07

| <i>Module code</i> | <i>Module title</i> |
|--------------------|--|
| EMM4016 | Final Year Project (contd. to Semester 8) |
| ESC4022 | Entrepreneurship and Small Business Management |
| ECC4032 | Project Management |
| EMC4041 | Research Methodology |
| EMM4172 | Process Control and Data Acquisition Systems |
| EMM4182 | MEMS and NEMS |
| EMM4193 | Robotics Technology |

Elective modules I^{\$}

| | |
|---------|---------------------------------------|
| EMM4312 | Automotive Systems [#] |
| EMM4322 | Renewable Energy Systems [#] |

Year 04 - Mechatronics Technology

Semester 08

| <i>Module code</i> | <i>Module title</i> |
|--------------------|---|
| EMM4016 | Final Year Project (contd. from Semester 7) |
| EMC4362 | Professional Development and Ethics* |
| EMC4371 | Intellectual Property Rights and Industrial Law |
| EMC4392 | Power Electronics and Applications |
| EMM4572 | Building and Energy Management Systems |
| EMM4582 | Machine Vision Systems |

Elective modules II^{\$}

| | |
|---------|--------------------------------------|
| EMM4622 | Artificial Intelligence [#] |
| EMM4632 | IoT and Smart Systems [#] |

NOTE:

* Non-GPA modules (NGPA).

\$ Students must select one (1) module from the given elective modules in each semester.

These modules will be offered only if at least ten (10) students have registered.

Year 02 - Polymer Processing Technology

Semester 03

| <i>Module code</i> | <i>Module title</i> |
|--------------------|-------------------------------------|
| ESC2012 | Mathematics III |
| EIC2021 | Fundamentals of ICT |
| ESC2032 | Economics and Financial Management |
| ECC2043 | Thermodynamics |
| EMC2052 | Workshop Technology |
| EMC2061 | Computer Aided Design |
| EMP2172 | Introduction to Polymers |
| EMP2183 | Raw Rubber Manufacturing Technology |

Semester 04

| <i>Module code</i> | <i>Module title</i> |
|--------------------|--|
| ECC2192 | Fluid Mechanics |
| EMP2433 | Dry Rubber Processing Technology |
| EMP2442 | Dry Rubber Processing Technology Practical |
| EMP2452 | Latex Processing Technology |
| EMP2463 | Plastic Processing Technology |
| EMP2471 | Plastic Processing Technology Practical |
| EMP2483 | Rheology and Physicomechanical Properties of Polymers |
| EMP2492 | Analysis and Characterization of Polymers |

Year 03 - Polymer Processing Technology

Semester 05

| <i>Module code</i> | <i>Module title</i> |
|--------------------|--|
| ECC3011 | Occupational Health and Safety |
| EMC3022 | Industrial Quality Management |
| EMP3342 | Design and Manufacturing of Dry Rubber Products |
| EMP3352 | Design and Manufacturing of Latex Products |
| EMP3363 | Design Project on Dry Rubber Products |
| EMP3373 | Design Project on Latex Products |
| EMP3382 | Finite Element Analysis |
| EMP3391 | Heat and Mass Transfer |
| EMP3402 | Mechanical Systems |

Semester 06

| <i>Module code</i> | <i>Module title</i> |
|--------------------|---------------------|
| EMP3416 | Industrial Training |

Year 04 - Polymer Processing Technology

Semester 07

| <i>Module code</i> | <i>Module title</i> |
|--------------------|--|
| EMP4016 | Final Year Project (contd. to Semester 8) |
| ESC4022 | Entrepreneurship and Small Business Management |
| ECC4032 | Project Management |
| EMC4041 | Research Methodology |
| EMP4202 | Die and Mold Design |
| EMP4212 | Design of Plastic Products |
| EMP4222 | Packaging Technology |
| EMP4232 | Recycling and Circular Economy |

Elective modules I^{\$}

| | |
|---------|--|
| EMP4332 | Pneumatic and Solid Tire Technology [#] |
| EMP4342 | Polyurethane Technology [#] |
| EMP4352 | Textile Technology [#] |

Year 04 - Polymer Processing Technology

Semester 08

| <i>Module code</i> | <i>Module title</i> |
|--------------------|---|
| EMP4016 | Final Year Project (contd. from Semester 7) |
| EMC4362 | Professional Development and Ethics* |
| EMC4371 | Intellectual Property Rights and Industrial Law |
| EMP4592 | Nanotechnology |
| EMP4602 | Surface Coatings and Adhesive Technology |
| EMP4612 | Polymer Composites and Applications |

Elective modules II^{\$}

| | |
|---------|--|
| EMP4642 | 3D Printing Technology [#] |
| EMP4652 | Dipping Technologies [#] |
| EMP4662 | Industrial Chemical Engineering [#] |

NOTE:

* Non-GPA modules (NGPA).

\$ Students must select one (1) module from the given elective modules in each semester.

These modules will be offered only if at least ten (10) students have registered.

Academic Staff

Department of Materials and Mechanical Technology



Prof. A. H. L. R. Nilmini

BSc. (Hons) (Colombo), PhD (Cardiff,UK)

Dean - Faculty of Technology

Research interests: Developing enhanced performance of polymeric (both rubber and plastics) materials for various application platforms – rubber blends, natural fiber composites, rubber technology, and polymer adhesion, and novel, natural and environmentally friendly biocides and their hybrids to cover a wider spectrum of antimicrobial activity [latex preservation

E-mail: nilminil@sjp.ac.lk



Prof. Gayan Priyadarshana

BSc. (Hons) (Sri Jayewardenepura), MSc. (Moratuwa), PhD. (Peradeniya)

Head of the Department

Professor

Research interests: Polymer nanocomposites, Nano materials synthesis and characterization, Nano-fertilizers, and Materials chemistry

E-mail: gayanp@sjp.ac.lk



Eng. WR de Mel

BScEng (Moratuwa), MSc (Peradeniya), MEng (NUS, Singapore), MIEEE

Senior Lecturer Gr. I

Research interests: Artificial Intelligence, Automobile Technology, Smart Vehicles, Machine Vision, Mechatronics Engineering, Laboratory Education, and Online Remote laboratories.

E-mail: wrdemel@sjp.ac.lk

Academic Staff

Department of Materials and Mechanical Technology



Dr. Rajitha Gunarathne

BSc. (The Open University), MSc. (USJ/Cardiff), PhD. (Manchester,UK)

Senior Lecturer Gr. II

Research interests: Advance composite manufacturing for biomedical, Automotive, and aeronautical industry, Specialty latex glove development, Development of properties enhanced solid tyres, Effective use of natural resources by developing value added products, and Microwave processing of polymers and composites

E-mail: rajitha@sjp.ac.lk



Dr. Suranga M. Rajapaksha

BSc. (Hons) (Sri Jayewardenepura), PhD. (MSU,USA)

Senior Lecturer Gr. II

Research interests: Design, synthesis and characterization of advanced organic materials utilizing the tools of organic chemistry to create macromolecules with interesting properties and functions, Explore synthetic methods to prepare polymers from raw materials that are cheap and/or renewable, Understanding the basis of adhesive binding at molecular level to improve and develop strong adhesives, Explore synthetic methods to prepare organ silicon compounds as a tool to develop polymers rich with silicone, and Development of elastomer-silicone blends

E-mail: suranga@sjp.ac.lk



Dr. Asangi Gannoruwa

BSc (Hons)(Peradeniya), MPhil. (Peradeniya), PhD. (NUT, Japan)

Senior Lecturer Gr. II

Research interests: Filler nano-structures for enhancement of the mechanical and viscoelastic properties of natural rubber, Natural rubber latex, Rubber chemistry, Latex processing technology, Biodegradable polymers, Solar energy conversion into electrical and chemical energies, Nanocatalysts, Fibre-rubber composites.

E-mail: asangi@sjp.ac.lk

Academic Staff

Department of Materials and Mechanical Technology



Dr. Gayan Siriwardana

BSc. (Hons) (Kelaniya), MSc. (SHSU, USA), PhD. (UTD, USA), Postdoc (VT, USA)

Senior Lecturer Gr. II

Research interests: Polymer composites for waste-water purification, Polymer additive manufacturing (3D- printing) for applications including automobile components, thermal insulation panels, acoustics etc., and Smart/shape memory polymers for 4D printing.

E-mail: gayansiriwardana@sjp.ac.lk



Dr. (Eng.) K. S. Kasun Weranga

BSc. (Hons) (Moratuwa), MSc. (Moratuwa), PhD. (AUT, New Zealand)

Senior Lecturer Gr. II

Research Interests: Wireless charging, DC-DC converters and supercapacitor based energy storage systems

E-mail: kasun.weranga@sjp.ac.lk



Eng. HR Jayetileke

BTech(Eng)(Hons) (The Open University), MPhil. (The Open University), AMIE (SL), EC (SL), MIEEE

Senior Lecturer Gr. II

Research interests: Automobile Technology, Smart Vehicle Technology, Mechatronics Engineering, Artificial Intelligence, Machine Vision, Power Electronics and Motor Drives, IoT and IIoT.

E-mail: hrjayetileke@sjp.ac.lk

Academic Staff

Department of Materials and Mechanical Technology



Mr. (Eng.) T. D. I. Udayanga

BSc. Eng. (Hons) (Moratuwa), MSc. Eng (Moratuwa)

Senior Lecturer Gr. II

Research interests: Sensors, Sensor Systems, Micro electromechanical systems, lab-On-Chip, and FEA

E-mail: isurutd@sjp.ac.lk



Dr. A. H. Wijethunge

BSc. (Peradeniya), PhD. (Peradeniya)

Senior Lecturer Gr. II

Research interests: Smart grid applications, Demand side management, and Industrial electronic applications

E-mail: akilawijethunge@sjp.ac.lk



Dr. Buddhika Amila

BSc. (Hons) (Sri Jayewardenepura), MSc. (Colombo), PhD (NUT, Japan)

Senior Lecturer Gr. II

Research interests: Embedded system designing, Instrumentation physics, Sensor investigation, Internet of things (IoT), FPGA development and thermoelectric power generation

E-mail: buddhika@sjp.ac.lk

Academic Staff

Department of Materials and Mechanical Technology



Mr. (Eng.) W.H. Peshan Sampath

BSc. Eng. (Hons) (Moratuwa), MSc. Eng. (Moratuwa), AMIE(SL), MIEEE

Lecturer (Un-Confirmed)

Research interests: Mechatronic engineering, Automobile technology, Micro electromechanical systems, Wearable biomedical devices, and FEA

E-mail: sampathwhp@sjp.ac.lk



Mr. (Eng.) O. A. P. C. Oruthota

BTech(Eng)(Hons) (The Open University), MSc. (Oviedo,Spain), AMIE (SL), EC (SL)

Lecturer (Probationary)

Research interests: Internal Combustion Engines, Vehicle Dynamics, Power electronic converters in hybrid and electric vehicles, and Field-Oriented Controlled of electric motors.

E-mail: pahanoruthota@sjp.ac.lk



Mr. E.K.N. Malinda

Dip (AutoCAD), BETHons (Sri Jayewardenepura), ETechIE (Sri Lanka)

Lecturer (Probationary)

Research Interests: Electric and Hybrid Vehicle Technology, Vehicle Automation and Autonomous Driving, Alternative Fuels, and Sustainable Mobility Solutions

E-mail: eknmalinda@sjp.ac.lk

Academic Staff

Department of Materials and Mechanical Technology



Mr. S Saruban

Dip (English), BETHons (Sri Jayewardenepura)

Lecturer (Probationary)

Research Interests: Automobile Lubricants, Automobile Technology, Electric Vehicles, Vehicle Safety, Automobile mechanical systems, Emissions.

E-mail: saruban@sjp.ac.lk



Ms. Sachini Subhashani

BETHons (Sri Jayewardenepura), MSc (Polymer Science) (Thailand)

Lecturer (On Contract)

Research Interests: Sustainable and Bio-based Polymers, Biodegradable and Compostable Plastics and Polymer Characterization

E-mail: sachinibushashani@sjp.ac.lk



Mr. Vishwa Prasanjana

BETHons (Sri Jayewardenepura)

Lecturer (On Contract)

Research Interests: AI-driven robotics, Soft robotics, Swarm robotics, Biomimicry techniques for robotics.

E-mail: vishwaprasanjana@sjp.ac.lk

Academic Staff

Department of Materials and Mechanical Technology



Mr. P. K. Viranjan de Silva

BSc (Hons) Mechanical Engineering (Specialized in Mechatronics) (Moratuwa)

Lecturer (On Contract)

Research Interests: Robotics and Autonomous Systems, Robot Perception, Vision-guided navigation and path planning.

E-mail: viranjandesilva@sjp.ac.lk

Non-academic Staff

Department of Materials and Mechanical Technology

Mr. Anuradha Galhena
Technical Officer Gr. II

Mr. M. A. A. D. Chandrawansa
Technical Officer Gr. II

Mr. W. M. T. T. Wijekoon
Technical Officer Gr. II

Mr. W. M. P. D. Walisundara
Technical Officer Gr. III (Mechanical)

Mr. R.M.N.B. Bandara
Technical Officer (Trainee) Gr.II

Mr.S.H.C.M. Senarath
Craft Demonstrator II

Mr. G.R.D.M.B. Gunathilake
Craft Demonstrator II

Ms. K. A. D. L Kathriarachchi
Management Assistant Gr. II

Mr. R. I. B. D. M. Rathnamalala
Lab Attendant Gr. III

Mr. N. W. K. A. P. Dilanka
Lab Attendant Gr. III

Mr. H. M. S. Herath
Lab Attendant Gr. III

Center Of Excellence In Polymer



The Center of Excellence in Polymer Analysis of USJ is equipped with the latest instruments built upon proven methodology.

Officer-in-Charge



Prof. Gayan Priyadarshana
Email: gayanp@sjp.ac.lk

Technology Workshop



The workshop of the Materials and Mechanical Technology Department consists of tools and equipment from basic hand tools to advanced cutting edge material removal machinery like lathe and milling. It facilitates basic to advanced manufacturing processes including cutting, fitting, welding, machining, foundry, and carpentry. Mainly the workshop provides the students with the knowledge of manufacturing technology along with hands-on experience in workshop practices and gives them the access to equipment, machinery and services to support the manufacturing phase of their design projects.

Polymer Processing Technology Specialization “Diploma in Polymer Processing Technology and Process Analysis”

Diploma in Polymer Processing Technology and Process Analysis (SLQF 03, 01-Year), offered by the polymer processing technology specialization, has been designed to introduce basics in polymer processing technologies and high-tech polymer instrumental analysis related to various fields including plastics, latex, dry-rubber, tyre & non-tyre products, nanotechnology, and polymer composites etc. The diploma consists of both theory and practical modules. The main goals of the diploma include; opening up new employment opportunities in the polymer field for the young generation passing G.C.E. A/L, helping the current employers in the field advancing into higher hierarchical levels, and providing an added qualification for technical executives and managers working or intend to work in the polymer industry.

The programme officially commenced on January 07, 2023 with its first intake of 18 students. The certificate awarding ceremony for the first intake was successfully completed on September 29, 2024.

For more details, please visit the university website:

[Diploma in Polymer Processing Technology and Process Analysis – Department of Materials and Mechanical Technology](#)

Email: DipPolymerTech@fot.sjp.ac.lk
gayanadikari7@gmail.com



Department of Science for Technology

Since the beginning of the new millennium, the world has witnessed the emergence of powerful technologies in many fields such as Medical science, Physics, Chemistry, Statistics, Economics, Mathematics, Computer science, Artificial intelligence etc. The environment surrounding technology has drastically changed in a way that human-kind has never experienced before and technology has become a crucial part of the people's lives, which is why the Faculties of Technology are being established with the mission of building an educational system well-suited to meet the technological needs of the modern society.

The Department of Science for Technology was established in 2019 as one of the newest departments in the Faculty of Technology, University of Sri Jayewardenepura. It was initiated with the prime objective of producing excellent graduates with adequate knowledge and professional skills to fill the void of lack of teachers in the Technology stream. While such a degree programme is still in the pipeline, the department acts as the central body providing all the technology students of the Faculty with a strong foundation in all the science and management science subjects. In November 2022, the Department launched the first ever web-based platform for mathematics teachers of Sri Lanka: MetaHub (Mathematics Education Teacher Awareness Hub) in collaboration with the Ministry of Education.

During the first two years all the students will be taught the core modules in the subjects Mathematics, Chemistry, Physics and Statistics, which will eventually be needed in their future as successful technologists.

These essential science subjects will be the initiators to explore the universal knowledge and enlighten the thinking and analytical skills.

Moreover, the department currently offers modules in the subjects Management, Communication skills, Ethical conduct of learners and Personality development, in line of the vision of the Faculty to produce employable graduates who will facilitate the National and Industrial needs of the society while being excellent human beings.

The Department of Science for Technology also coordinates mini projects which you will find quite interesting and provide valuable experiences, preparing the students to face the future challenges in their careers.

The students can get elected to specialize in a particular focus area based on their preference and the academic performance at the end of their first year. The categorization of students to

different specializations will also be carried out by the Department of Science for Technology.

In addition to the foundation and continued support offered by the department, it also facilitates students with many educational and entertainment programs that make the learning process more enjoyable.

Academic Staff

Department of Science for Technology



Dr. Gaya Nayomi Jayakody

BSc. Physics (Hons) (Sri Jayewardenepura), MSc. Math. Ed. (Colombo), PhD in Math. Ed. (SFU, Canada)
Head of the Department, Senior Lecturer Gr. II

Research interests: Applications of different constructs in the theory of Commognition as a theoretical lens, Students' and teachers' understanding of Mathematical concepts and use of Advanced Mathematics in Secondary teaching.

E-mail: gayanayomi@sjp.ac.lk



Dr. K. P. C. Nilasha

BSc. Chemistry (Hons) (Sri Jayewardenepura), PhD. (St.-Andrews, UK), Post doc. (Strathclyde, UK),
Post doc. (Glasgow, UK)

Senior Lecturer Gr. I

Research interests: Polyurethane Technology, Fuel Cell Technology, Nanotechnology, Solid State Chemistry and Material Science

E-mail: cpatabendige@sjp.ac.lk



Dr. B. E. A. Jayasekara

BCom (Hons) (Kelaniya), M.Com (Kelaniya), PhD in Management (Kelaniya), Diploma in Banking and Finance, Credit Management, International Trade Finance, Associate Member of Institute of Bankers in Sri Lanka

Senior Lecturer Gr. II

Research interests: Entrepreneurship, Financial Stress, Financial Capability, Marketing, Small and Medium Businesses, Strategic Management, Business Psychology

E-mail: eranga@sjp.ac.lk

Academic Staff

Department of Science for Technology



Ms. M. K. S. S. Gunarathne

**BA. English (Hons) (Sri Jayewardenepura), MA. Linguistics (Kelaniya), Diploma in TEFL (LSEE)
Lecturer**

**Research interests: Language Education, Applied Linguistics, Gender Studies, Classical Literature,
Discourse Analysis, And Sri Lankan English Literature**

E-mail: kaushi_gunarathne@sjp.ac.lk



**Ms. H. M. H. Nihara Miyurangi Jayawardana BA. TESL (Hons) (Sri Jayewardenepura), M.TESL (PGIE-
The Open University)**

Lecturer (on contract)

**Research interests: Sociolinguistics, Gender Studies, Technology-Enhanced English Language Teaching,
Ai-Assisted Language Learning And Feedback, Academic Writing Pedagogy, Oral Communication
Development In Higher Education**

E-mail : niharajawardane@sjp.ac.lk

Non - Academic Staff

Department of Science for Technology

U.N.H.A. Perera
Management Assistant (on contract)

H.A.N.D. Rathnayaka
Technical Officer (Gr. II)

P.S. Wickramasingha
Technical Officer (on contract)

M.D.D. Premathilaka
Lab Attendant (Gr. III)



Common Student Facilities Provided by the University

Library

The Library of the University of Sri Jayewardenepura stands at the heart of academic discovery and collaboration. By offering a wealth of resource materials and guiding users in essential information-seeking skills, the Library ensures that the intellectual community thrives in today's information-rich age.

The University's comprehensive library network houses an extensive collection of printed and electronic resources across diverse disciplines. With access to approximately 250,000 printed books, a considerable number of electronic databases, books and journals, the Library supports fields such as Humanities and Social Sciences, Applied Sciences, Management and Commerce, Medical and Allied Health Sciences, Engineering, Technology, and Computing. Specialized collections include English language learning resources, palm-leaf manuscripts, newspaper archives, and rare books.

The Technology Faculty Library is a key branch of the University library system, serving as the hub of knowledge for the Faculty of Technology. It houses around 3,000 books, with comprehensive collections in Biosystems Technology, Engineering Technology, and Information and Communication Technology. To encourage leisure reading, the library also provides a selection of English and Sinhala fiction. The library accommodates up to 55 users for reading and reference purposes and is fully equipped with Wi-Fi and laptop lending services.

One of its innovative initiatives, the 'Basha Buddy' program, offers students a friendly, non-judgmental environment to improve conversational English. Set within the serene surroundings of the Faculty, the Technology Faculty Library provides an ideal space for students to focus, study, and engage with knowledge, inspiring both academic growth and personal development.

| Main Library | |
|---|---------------------|
| During Coursework | |
| Monday - Friday | 8.00 am. - 6.00 pm. |
| Saturday | 8.00 am. - 6.00 pm. |
| Sundays and Public Holidays | Closed |
| During Examination Period | |
| Monday - Friday | 8.00 am. - 8.00 pm. |
| Saturday | 8.00 am. - 6.00 pm. |
| Sundays and Public Holidays | 8.00 am. - 6.00 pm. |
| Library at Faculty of Technology | |
| Monday - Friday (During Coursework) | 8.00 am. - 5.15 pm. |
| Weekends, public holidays (During Coursework) | Closed |
| Monday - Friday (During Exam.) | 8.00 am. - 8.00 pm. |
| Weekends, public holidays (During Exam.) | 8.00 am. - 6.00 pm. |

Library Website: <http://lib.sjp.ac.lk>

Contact Details:

Librarian:

Dr. (Mrs.) N. D. Wijayasundara

Email: librarian@sjp.ac.lk

Tele: +94 11 2804 194

Fax: +94 11 28041 94

Assistant Librarian (Technology Library):

Ms. U. P. N. N. Pathirana

Email: library.fot@sjp.ac.lk

Tel: 011 2758 531 (Main Library), Ext: 8531 (Main Library)

Library, University of Sri Jayewardenepura, Nugegoda, Sri Lanka

Center For It Services

The Center for IT Services (CITS) manages all the activities related to the IT infrastructure of the entire university. It coordinates the university server administration and maintains e-services and applications while providing IT technical support and solutions for the university students and staff. Main services and facilities provided by the Center for IT Services (CITS) are,

- University E-Mail Service
- Internet Facility
- University Web Site
- Management Information Systems
- Fiber Backbones
- Local Area Networks
- Wi-Fi Network
- Intercom System
- VoIP System
- Maintenance of ICT Equipment
- Installation of Software
- Providing Security Software
- Specifications and Technical Evaluations
- Special Training Programs
- Advisory Services
- Technical Support
- Audio & Video Recording
- Digital Media

CITS Website:

<http://www.sjp.ac.lk/cits/>

Contact Details:

Email: cits@sjp.ac.lk

Tel: +94 11 2758 757

Center for IT Services

University of Sri Jayawardenepura. Nugegoda, Sri Lanka.

Career Guidance Unit

The Career Guidance Unit (CGU) plays a pivotal role in shaping the future of undergraduates by supporting their academic progression and facilitating a smooth transition into the dynamic world of work. The unit is committed to developing well-rounded, self-aware, and employable graduates who are equipped to succeed in an increasingly competitive global environment.

CGU Supports Undergraduates in Developing

1. A smooth transition from school to university through orientation, awareness, and wellbeing programs.
2. Career awareness and counselling to help students make informed and realistic career decisions.
3. Employability skills such as communication, teamwork, leadership, and professionalism through workshops and training.
4. Access to up-to-date career information on local and international education, training, and employment opportunities.
5. Industry exposure and networking opportunities through career fairs, job fairs (Touch the Peak), and employer engagement programs.
6. Work experience readiness via internships, training placements, and experiential learning opportunities.
7. Graduate placement preparedness through CV clinics, mock interviews, and recruitment-related support.
8. Career development learning integrated into the curriculum through Career Development Course Modules.
9. Entrepreneurial and innovation skills developed through initiatives such as Kadamandiya, Food Fiesta, Start-up Mento

ring, Sustainable Development Projects, and the Cafeteria Project, leading to successful student start-ups.

10. Personal and professional development through mental health and wellbeing programs, Outward Bound Training (OBT) for leadership and teamwork, and initiatives to strengthen English proficiency, public speaking, and lifelong learning skills.

The Career Guidance Unit (CGU) is one of the most important support centres of the university. It is dedicated to assisting undergraduates, particularly fresh graduates, to develop essential skills, self-assessment capabilities, and effective information-seeking and decision-making abilities, thereby enhancing their employability in today's highly competitive world of work.

The following staff members are fully committed to supporting students in achieving their career aspirations:

1. Dr. Eranga Jayasekara – Director
2. Dr. Sameera Jayawardane – Advisor, Gavel Club
3. Mrs. Chathurangani Thennakoon – Advisor, Career Skills Development Society, Flair Club, and Start-up Hub
4. Mrs. H. M. S. Niroshani – Advisor, Values of the Wise Society (VOW)
5. Mrs. Nirosha Madhuwanthi – Advisor, Adventure Club and J'pura National Rover Crew

| | | |
|--|---|---|
|  | Career Skills Development Society (CSDS) | The CSDS is a student-led initiative dedicated to enhancing employability by developing essential soft skills, providing career guidance, fostering professional networks, and encouraging active community engagement. |
|  | Flair Club | Flair is a vibrant platform that nurtures students' artistic talents, promotes creativity and aesthetic appreciation, and holistic personal development through diverse events. |
|  | Gavel Club | This is a dynamic platform that empowers students to enhance their public speaking, communication, and leadership skills, fostering confidence and professionalism for their future careers. |
|  | Startup Hub | This is an innovative platform that empowers undergraduates to develop entrepreneurial skills, gain real-world business experience through networking and practical exposure to entrepreneurship. |
|  | Adventure Club | J'pura Adventure club is a platform for energetic undergraduates to develop their skills while pursuing their passion for adventure, with a member base of about 2000+ including all faculties of the university. |
|  | Values of the Wise Society | This is dedicated to promoting virtues and values in professional development, fostering a value-based mindset among undergraduates, and inspiring social responsibility through meaningful initiatives. |
|  | Career Guidance Cell | This is facilitating career exploration, enhancing students' employability and industry readiness, and fostering strong partnerships and networking opportunities with professionals and organizations. |

To join with clubs please use following QR codes:





For further details please visit our website and contact:

Career Guidance Unit Website:

<http://www.sjp.ac.lk/career/>

Contact Details:

Dr Eranga Jayasekara Director – Career Guidance Unit

Phone :- 0112801088

Email:- careers@sjp.ac.lk

Web:- career.sjp.ac.lk

Medical Center

The university Medical Center (MC) delivers medical facilities to the students, staff and their families, free of charge. It consists of a primary staff of 1 doctor, 1 nurse, 1 pharmacist and 1 counselor. Our center is a sub unit of the main Medical center at the main University, managed by the University Medical officer-in-charge. Preventive care of our Faculty is done by the preventive care section comprising of an infectious disease consultant and 2 PHI who visit us time to time from the main university. The counselor is available 2 days a week and students and staff can meet him via appointment. An ambulance is available at all time to deal with medical emergencies.

| Medical Center | |
|------------------------------|---------------------|
| Medical Center opening hours | |
| Monday-Friday | 9.00 am. - 3.00 pm. |

All students should register at the Medical Centre to obtain treatment from the Medical Center. The new students entering the university, should submit his/her medical history sheet to the Medical Center within two weeks from receiving the registration number. More instructions can be found in the Medical Center website.

Medical Center Website:

<http://www.sjp.ac.lk/students/medical-center-and-medical-facilities/>

Contact Details:

Dr. (Mrs.) Hemamali Malwenna (Medical Officer) - Tele: +94 718362720

Dr. Kasun Wijethilake (Counselor) - 0773549028

Medical Health Center

University of Sri Jayewardenepura

Student Welfare Division

The student welfare division of the university handles all the welfare activities of the students. The following are the main functions of this division.

- Providing accommodation facilities and canteen facilities
- Payment of Mahapola , Bursary and other scholarships
- Facilitate to obtain Laptop loans and season tickets
- Handling student unions activities and registration of subject societies
- Conduct student council elections
- Appointment of Academic sub wardens
- Providing other services (Tailor shop, Salon, Photocopy Services, Milk & Milk food outlets)

A member of the academic staff has been appointed as the Welfare Director to advise student welfare division regarding student welfare. The student welfare division handles all above activities under the direction of Deputy Registrar. Following e-mail addresses and contact number have been reserved to submit student issues directly to the welfare division.

- Bursary issues - info.bursary@sjp.ac.lk
- Hostel issues - info.hostel@sjp.ac.lk
- Mahapola issues - info.mahapola@sjp.ac.lk
- Other issues - welfare@sjp.ac.lk
- Contact Number : 0112803471

University Accommodation

Comprised of 29 hostels located within the university premises and more outside in close-by areas, the university has the capacity to accommodate up to 45% of the student population.

The Faculty of Technology also has a hostel complex at the new faculty complex in Pitipana. The hostel complex is comprised of modern facilities and 200 rooms which can accommodate about 800 students.

First- and third-year students are given priority in the selection process in order to be of more assistance to their studies. One and half months before the end of each academic year, the students will be informed about their hostel facilities for the next year. A set of rules and regulations are lined up for the students to abide by. These are to be followed with utmost attention which benefits both students and the university. Common conditions and rules and regulations for residential students are detailed in;

https://www.sjp.ac.lk/students_old/hostels/hostels-rules-and-regulations-for-residential-students/

Hostel Website:

<http://www.sjp.ac.lk/students/hostels/>

Cafeterias And Other University Shops

The university has a chain of more than 10 canteens offering hygienic, healthy food including variety for students, at affordable prices. In addition to this, it also has a milk bar, an Indian food house, and a fresh juice and organic food house. The welfare division supervises the quality of the food and the cleanliness of the canteens.

The Faculty of Technology consists of a co-operative shop where students can get stationery and related services such as photocopying while they are also privileged with the facilities such as the university's tailor shop, library photocopy center and other co-operative shops.

Physical Education And Sports Center (Pesc)

The Physical Education Division provides the opportunity for the undergraduates to take part in a variety of recreational and sports activities as they have identified the valuable benefit of such activities in developing a student's competence and confidence.

Available Sports in PESC:

- Athletic
- Netball
- Road Race
- Rugby
- Carrom
- Tennis
- Chess
- Table Tennis
- Taekwondo
- Swimming
- Badminton
- Karate
- Hockey
- Cricket

PESC Website for more details: <http://www.sjp.ac.lk/physical-education/>

Furthermore, the Faculty has a sports center with several sports equipment at the Lecture Hall building Lower ground floor. The faculty has a full time sports instructor, who coordinates sports activities with the PESC. In addition, the faculty has a gymnasium.

Contact Details:

Mrs. Nishanthi Vidanage

Email: phyedu@sjp.ac.lk

Department of Physical Education

University of Sri Jayewardenepura

Nugegoda, Sri Lanka.

Tele: +94 11 2803475

Academic Information

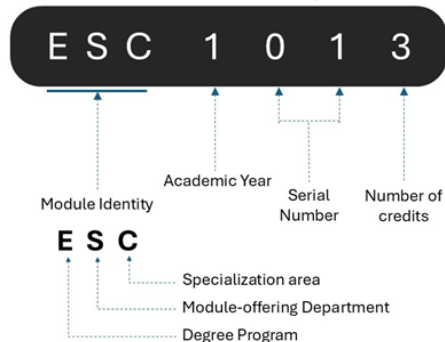
The Faculty of Technology offers the following three degrees for students who are qualified from the G.C.E. Advanced Level Technology stream.

- Bachelor of Biosystems Technology Honours Degree
- Bachelor of Engineering Technology Honours Degree
- Bachelor of Information & Communication Technology Honours Degree.

All degree programmes are conducted in English, span four years, and follow a semester-based system. Students are required to register for the academic year annually at the student registration branch of the university. Students are required to register for each semester's modules within the designated registration period as announced by the office of the Faculty of Technology.

Modules Codes

Modules in the curricula are coded for identification. Each code consists of three English letters, followed by four digits. As an example, the module code ESC 1013 is identified as,



| | | Letter | Identity Definition |
|----------------------------|---|--------|---|
| Degree Program | | B | Bachelor of Biosystems Technology |
| | | E | Bachelor of Engineering Technology |
| | | I | Bachelor of Information & Communication Technology |
| Module-offering Department | | B | Department of Biosystems Technology |
| | | C | Department of Civil and Environmental Technology |
| | | I | Department of Information and Communication Technology |
| | | M | Department of Materials and Mechanical Technology |
| | | S | Department of Science for Technology |
| Specialization | Dept. of Biosystems Technology | C | Common to two or more specializations |
| | | A | Agriculture and Environmental Technology Specialization |
| | | F | Food Processing Technology Specialization |
| | Dept. of Civil and Environmental Technology | I | Industrial Biosystems Technology Specialization |
| | | B | Construction and Building Services Specialization |
| | | E | Energy and Environmental Technology Specialization |
| | Dept. of Information and Communication Technology | G | Geotechnology Specialization |
| | | M | Multimedia Technology Specialization |
| | | N | Network Technology Specialization |
| | Dept. of Materials and Mechanical Technology | S | Software Technology Specialization |
| | | A | Automobile Technology Specialization |
| | | M | Mechatronic Technology Specialization |
| | | p | Polymer Processing Technology Specialization |

Academic Dishonesty

Academic dishonesty (academic misconduct) is defined as any action or attempted action of cheating that occurs in relation to formal academic exercise. Examples of academic dishonesty include, but are not limited to, the following:

- **Plagiarism:** The adoption/ reproduction of works of another person (ideas, words or statements) without acknowledging and showing it as an own work.
- **Fabrication:** The misrepresentation of data, information, or citations in any formal academic exercise.
- **Deception:** Providing false information concerning a formal academic exercise (e.g., giving a false excuse for missing a deadline).
- **Cheating:** Any effort to give/ obtain assistance in a formal academic exercise (e.g., during an examination) without due acknowledgment.
- **Sabotage:** Acting to prevent others from completing their work (e.g., cutting pages out of library books, wilfully disrupting the experiments of others).

Submission Of Student Assignments

Students must submit their assignments and reports for each activity on time to the course lecturer or Demonstrator. These submissions must be original work created by the students, and any form of academic dishonesty should be avoided. To prevent plagiarism, students should properly cite all sources referenced in their assessments or reports.

Students must indicate their extent of collaboration when they are collaborating when participating in activities/ sessions such as group work, partnerships, assignments, practical sessions and field visits. Students who are found to have engaged in activities related to academic dishonesty are subjected to disciplinary action by the university.

Evaluation And Grading Of Modules

Submission Of Student Assessments

The performance in a module will be evaluated through a Continuous Assessment Component and an End-Semester Assessment. To earn a credit value, respective or both assessing components of the module should be completed successfully with satisfactory grades.

- **Continuous Assessments (CA):** Continuous assessments are conducted using one or more methods such as mid-semester examinations, oral/ written tests, assignments, presentations, class participation, and practical reports/ tests. The course lecturer may decide the combination of methods of assessment to be used in a particular module.
- **End-Semester Assessment (ESA):** **Every module will be evaluated by an end semester assessment, which will be held during the scheduled examination period. The duration of the examination can vary depending on the module requirements.

**There may be exceptions for certain modules.

Grading System

Semester Grade Point Average

The calculation of the Semester Grade Point Average (SGPA) is based on the summation of Grade Points earned for all GPA modules registered (except those awarded with academic concession or withdrawn) in a semester weighted according to number of credits as per the following formula, where C_i is the number of credits for the i th module in a given semester and G_{P_i} is the grade points earned for that module and n is the number of GPA modules in the semester.

$$SGPA = \frac{\sum_{i=1}^n C_i GP_i}{\sum_{i=1}^n C_i}$$

Note: It must be noted that weightage for Continuous Assessment may vary depending on the module and therefore, fixed weightages must not be brought into the SGPA calculation equation. Industrial training should be allocated GPA credits.

Cumulative Grade Point Average

The Cumulative Grade Point Average (CGPA) describes a student's current standing in terms of grade points earned for all GPA modules registered up to a given point of time (except those awarded with academic concession or withdrawn) weighted according to number of credits as per the following formula, where C_i is the number of credits for the i th module and GP_i is the grade points earned for that module and n is the total number of registered GPA modules.

$$CGPA = \frac{\sum_{i=1}^n C_i GP_i}{\sum_{i=1}^n C_i}$$

Note: The weightage for each semester is taken as uniform for the calculation of CGPA. All semesters must be successfully completed for the award of the degree.

Award of Grades and Their Respective Grade Points

Grades, Grade Point Values and the Description are as follows:

| Grade | Grade Point | Description |
|-------|-------------|------------------|
| A + | 4.0 | Excellent |
| A | 4.0 | |
| A - | 3.7 | |
| B + | 3.3 | Good |
| B | 3.0 | |
| B - | 2.7 | |
| C + | 2.3 | Pass |
| C | 2.0 | |
| C - | 1.7 | |
| D | 1.3 | Conditional Pass |
| E | 0.0 | Fail |

Note: In order to earn grade D or above, students must score more than the minimum prescribed marks for both the Continuous Assessment (CA) and the End-Semester Assessment (ESA). If the assessment is only by CA, minimum prescribed mark for CA will apply.

References to Indicate The Status When a Module is Not Completed.

| Reference | Grade point | Description |
|--------------|-------------|--|
| E (CA & ESA) | 0.0 | Both CA and ESA marks are below the prescribed minimum. Incomplete CA and ESA. |
| E (CA) | 0.0 | CA mark is below the prescribed minimum. Incomplete CA. |
| E (ESA) | 0.0 | ESA mark is below the prescribed minimum. Incomplete ESA. |
| N | - | Academic concession |
| W | - | Withdrawn |

Percentage marks ranges

| Percentage Marks for reference | Grade |
|--------------------------------|-------|
| 85 and above | A + |
| 75 to 84 | A |
| 70 to 74 | A - |
| 65 to 69 | B + |
| 60 to 64 | B |
| 55 to 59 | B - |
| 50 to 54 | C + |
| 45 to 49 | C |
| 40 to 44 | C - |
| 35 to 39 | D |
| 0 to 34 | E |

** This is effective from the 2022/2023 batch onwards.

Note: Percentage marks ranges given above are for the guidelines of the Examiner. Marks ranges for a particular module may be decided by the Moderator, in consultation with the Examiner, based on the marks distribution and taking the above reference marks ranges into consideration.

Cut-off Levels of CGPA for Awarding Classes/ Pass

| Class/Pass | CGPA |
|----------------------|------|
| First class | 3.70 |
| Second Class (Upper) | 3.30 |
| Second Class (Lower) | 3.00 |
| Pass | 2.00 |

All requirements for the award of the degree must be completed in four academic years to be eligible for a Class.

Pass/Fail Criteria

1. The percentage pass mark for CA is equal to the minimum mark assigned for Grade C- while the percentage pass mark for ESA is equal to the minimum mark assigned for Grade D. (Proportion of marks allocated for CA and ESA must be approved by the university. It is recommended to adopt 30% for CA and 70% for ESA for theory-oriented modules and 40% for CA and 60% for ESA for practically oriented modules. There may be modules with a higher percentage for CA or assessed entirely by CA.)
2. Grade D or above is required to earn credit value for a module.
3. Students failing in CA, ESA or both CA and ESA must repeat respective components.
4. A student who is absent/fail CA or ESA shall register to repeat the relevant component at the immediate next attempt.
5. Grade C-, D or E, which can be improved to a Grade C, are considered for calculating Semester Grade Point Average (SGPA).
6. A student is considered to have completed a semester successfully only if he/she has achieved a
 - a. SGPA of 2.00 or above, and
 - b. has, no E grade in that semester and
 - c. has no more than three grades at the levels of C- or D.
7. In repeat attempts, all E and D grades should be improved to C- or C, and grade C- should be improved to C if necessary and achieve a SGPA of 2.00 or above.
8. All modules for which the student has registered for the semester, except non-GPA modules, will be counted in calculating SGPA.

Academic progression

A student who has not earned a cumulative GPA of 2.0 or above in the first three semesters will not be permitted to register for the fifth semester until the cumulative GPA of the first three semesters are improved as required.

Maximum period for the completion of the degree

The maximum period for completion of all requirements for the award of the degree is recommended to be 06 academic years. The Senate of the university may grant one academic year at a time beyond initial 06 academic years, based on the merit of individual applicants, for a maximum of 03 years.

Degree Requirements

In order to earn a Bachelor of Technology Honours Degree in the specified discipline, a student must have,

- Completed modules worth of a minimum total of 120 GPA and NGPA credits specified by the curriculum of the specialized area approved by the Senate
- Completed any other mandatory requirements prescribed by the faculty.
- Successfully completed all semesters,
- A minimum cumulative GPA (CGPA) of 2.00.

Examination Regulations

Repeating requirements of unsatisfactory/ failed modules

A student who receives a grade of E(CA) or E(ESA) for a particular module should register and repeat that module on the first occasion the same module is offered, unless otherwise approved by the Faculty Board and the Senate. Please note that registration for CA and ESA components must be done separately at the exam division within the given timeline. A student who receives a grade of C-, D for a module may upgrade that by registering in that module on the first occasion that the same module is offered.

The maximum obtainable grade at a repeat examination is “C” irrespective of the actual marks obtained. However, in the event a student obtains a lower grade while attempting to improve the grade she/he will be entitled to the previous grade.

Absence of an examination

In the event of an examination absence, students are required to notify the Dean and provide supporting documents for an Academic Concession. As the final authority, the University Senate will review the provided reason/s and decide on their validity for examination purposes. If the Senate approves the Academic Concession, the student will be allowed to sit for the next examination, with the results recorded as the first attempt.

In the event of a CA absence, students must contact the relevant module lecturer with supporting documents for an alternative to complete the CA within 2 days or as soon as possible.

Attendance requirement

Students are eligible to sit for their final (end-semester) examination only if they fulfil the following two conditions in each module.

a) Students must have participated in the continuous assessment (CA) component (assessments, tutorials, mid-semester, and so on, relevant to the evaluation and completed the CA).

b) A student is deemed to have satisfactory participation if he/she has attended lectures, assignments including laboratory work, tutorials, quizzes, presentations, term papers or similar activities, project work, training, camps and similar activities to the satisfaction of the relevant lecturers in charge.

By-Law For The Award Of The Degrees

This By-law may be cited as the “By-laws, relating to the Degrees of Bachelor of Engineering Technology (BET.), Bachelor of Biosystems Technology (BBST.), and Bachelor of Information and Communication Technology (BICT.), hereinafter referred to as “the degrees”, approved by the Senate of the University of Sri Jayewardenepura, hereinafter referred to as “the Senate” and came into effect from 2016/10/04.

Award of Degree (Section 3.1.1)

The Degree of Bachelor of Engineering Technology (BET.), Bachelor of Biosystems Technology (BBST.) or Bachelor of Information and Communication Technology (BICT.), may be awarded by the University of Sri Jayewardenepura, hereinafter referred to as “the University”, to a student who:

a) has fulfilled all the eligibility requirements of the degree programme as per Section 3.2; and

b) has been duly registered as a full-time student at the University as set out in Section 3.3; and

c) has paid all the fees prescribed by the University; and

d) has completed the prescribed programme of study to the satisfaction of the Senate as set out in Section 3.4; and

e) has successfully completed all projects, seminars, and other work relevant to the programme of study, as may be prescribed by the respective Head of the Department of study and as set out in the Performance Criteria; and

f) has satisfied the Board of Examiners and the Senate as to the suitability of the candidate for the award.

The Degrees shall be conferred on candidates qualified as in Section 3.1.1, in accordance with the Performance Criteria as laid down by the Senate.

Eligibility for Registration (Section 3.2)

An application may be considered for admission to the University to follow the Degree Programmes if the candidate;

- a) has attained the prescribed minimum standards at the G.C.E. Advanced Level examination in a manner as determined by the University Grants Commission of Sri Lanka and accepted by the Senate; and
- b) has attained other prescribed minimum standards at such examinations as may be approved by the Senate from time to time; and
- c) has been selected according to the stipulated University Admission Criteria.

Registration for the Degree Programme (Section 3.3)

- a) A candidate selected for admission may register to follow Semester 1 of the Degree Programme. Such registration shall be carried out as prescribed by the Senate.
- b) Eligibility for registration for the subsequent semesters of the programme shall be as determined in accordance with the Performance Criteria as laid down by the Senate.
- c) Provisional registration may be permitted by the Senate under exceptional circumstances.
- d) Prescribed fees payable for registration, tuition, and examinations shall be as determined by the Council of the University.
- e) A student admitted to the degree programme shall not be permitted concurrent registration for any other programme of study.

Programme of Study (Section 3.4)

Subject to these By-laws, the programmes of study for the Degrees shall each be of four academic years duration including a period of industrial training as may be prescribed by the Senate. Each academic year will normally consist of two semesters as prescribed in the Performance Criteria.

- A candidate, during the programme of study;
 - a) shall attend a specified course of lectures; and
 - b) shall perform specified work for continuous assessment as may be prescribed by the respective Head of Department; and
 - c) shall undertake approved projects assigned by the respective Head of Department; and
 - d) shall complete a specified period of industrial training at such an institution as may be specified by the person in charge of industrial training of the Faculty of Technology.
- The programme of study and the relevant course modules shall be as laid down by the Senate.
- The syllabus for each course module shall be prescribed by the Senate on the recommendation of the relevant Department and the Faculty.

Scheme of Evaluation

Performance evaluation shall be held for each course module as prescribed by the Senate on the recommendation of the respective Head of the Department and the Faculty subject to eligibility requirements stipulated in the Performance Criteria.

Performance Criteria

- a) Grading of the evaluation for each course module shall be in accordance with the Performance Criteria as prescribed by the Senate.
- b) Awarding of the Degree and class shall be based on overall Grade Point Average and any other graduation requirements shall be in accordance with the Performance Criteria as prescribed by the Senate.

Board of Examiners

- a) A board of examiners shall consider the performance of the candidate based on the assessments made by examiners/moderators at the end of each semester and shall make recommendations to the Senate.
- b) An application to appear for an examination shall be made available prior to prescribed dates and shall be accompanied by the prescribed examination fees where applicable.
- c) In the event of illness a student may be permitted to withdraw from an examination as per conditions laid down by the Senate.

Regulations and Revisions

- a) Regulations under this By-law may be framed by the Senate as and when necessary.
- b) All other common regulations applicable to Universities in Sri Lanka are also applicable to students registered for this programme.
- c) This By-Law may be revised or amended as and when necessary.

Administrative Staff

Prof. A. H. L. R. Nilmini
B.Sc. (Hons) (Colombo), Ph.D. (Cardiff)
Dean
Faculty of Technology
nilminil@sjp.ac.lk

Mr. Uditha S. Kurugala
BA (Sri Jayewardenepura), PG Dip (Kelaniya), MLRHRM (Colombo),
MPhil (Peradeniya)
Deputy Registrar Faculty of Technology
dr.fot@sjp.ac.lk

Mr. K. E. W. Jayasiri
B.Com (Sp) USJP
Deputy Bursar, Faculty of Technology
wasantha@audit.cmb.ac.lk

Faculty Office

Non-Academic Staff

Mrs. KDS Priyadarshanie
Senior Staff Management Assistant

Mr. AHW Agalawatte
Technical Officer /ICT

Mrs. WSS Karunaratne
Management Assistant I

Mrs. PKNPP Kumari
Management Assistant I

Mrs. HGRRTK Karunaratna
Management Assistant II

Mrs. SDYN MAlkanthi
Management Assistant III

Mrs. MW Maduwanthi
Management Assistant III

Mr. DLA Senevirathne
Management Assistant III

Mr. EIEA Samarakoon
Management Assistant (Book Keeper) III

Ms. Roshani Alan
Management Assistant III

Faculty Office

Ms. AVML Perera
Management Assistant III

Ms. SMDCKH Senevirathne
Management Assistant III

Mr. MBN Maduranga
Works Aid III

Mr. DMVD Senevirathna
Works Aid III

Mr. RGW Perera
Works Aid III



PRE-CONFERENCE WORKSHOPS 2025
Organized by: Faculty of Technology, University of Sri Jayewardenepura
International Conference on Innovation and Emerging Technologies (ICIET) - 25th to 27th November 2025

The Fifth International Conference on Innovation and Emerging Technologies (ICIET) 2025





Industry Conclave 2025



Advances in Technology Journal



The research journal, Advances in Technology (AIT), was initiated in 2021 by the Faculty of Technology, University of Sri Jayewardenepura. Advances in Technology is an open-access, peer-reviewed journal that covers theoretical and experimental research pertaining to the knowledge and applications of Technology in all aspects of Applied Sciences, Engineering, and Education.

AIT journal provides an immense platform for researchers, including undergraduates, postgraduates, scholars, and academics, to publish their exciting and innovative technology-related research and acquire higher visibility for their findings locally and globally.

AIT journal accepts research articles, communications and reviews that identify and examine technology advancements. The journal focuses on technology-based research in the following areas:

- Advanced Materials
- Agriculture Technology
- Automation
- Automobile
- Aquatic and Marine, Biotechnology
- Biomedical, Building Services
- Civil and Construction Technology
- Computer Networks, Data Science and Deep Learning
- Electrical and Electronics
- Energy and Environmental Technology
- Field Crop Management

- Emerging Food Technology
- Food Preservation Technology
- Geotechnology
- Information and Communication Technology
- Industrial Bioprocessing
- Mechatronics
- Mechanical Technology
- Multimedia Technology
- Nanotechnology
- Robotics
- Science for Technology
- Transportation
- Technology Education
- Technology Management
- Polymer Technology
- Waste Management Technology

The current Editor-in-Chief of AIT is Professor Nilushi Nugara, and the journal Editorial Team comprises experts from diverse fields. To follow more on AIT journal, please visit:

Website: <http://journals.sjp.ac.lk/index.php/ait/>

Facebook Page: <https://www.facebook.com/Advances-in-Technology-144319434149016>

Twitter: <https://twitter.com/Advtechnol>

The Published Volumes



Student Activities



Diwali Festival



Exhibition



Saviskara A Showcase of Talent



Map of the Faculty



A Administration Building
B Academic Building
C Lecture Hall, Student center, Canteen, Student common area & Health center

D Laboratory building
E Canteen
F Auditorium
G Workshop Building
H Student Hostels
I Guest House

P1 Staff parking
P2 Student parking



FACULTY OF TECHNOLOGY
University of Sri Jayewardenepura
Mahena Watta,
Pitipana North, Homagama
Web site: <http://tech.sjp.ac.lk/>

