

2024

A new version of this programme is coming soon

This programme is currently being unified with others across Te Pūkenga to provide one programme that is portable, consistent, and more closely aligned with the needs of industry. This is a good thing but does mean that there will be some changes to the information below. Enquire at eit.ac.nz to receive the latest updates on the new programme.

Bachelor of Computing Systems

Focus streams include Systems Development, Support and Infrastructure, Information Systems and Intelligent Systems.

Develop a sound knowledge of computer hardware, data communications and networking and cybersecurity, information systems and data analytics, IT management, software development and systems analysis and design, and understand and engage in Internet of Things technology, and elements of robotics, automation, and artificial intelligence and machine vision.

This degree will give you an understanding of, and the ability to develop, high quality computing solutions. You will explore the processes and practices necessary to meet the demands of a professional career in the fast-paced computing industry.

As part of your programme, you will undertake a major industry-based project or internship. This provides an opportunity for you to demonstrate your potential to employers, experiencing “real world” computing, and hone your soft-skills within a professional IT environment.

Location	Hawke's Bay (also offered at Tairāwhiti - see separate information pack)
Start	February and July
Length	Three years full-time*
Contact	Amandeep Kaur Phone: 06 830 1203 Email: akaur@eit.ac.nz

* Part-time study available.

For NZ Citizens and Permanent Residents



TE AHO A MĀUI



TePūkenga

Enjoy a career in NZ's best-paid industry

The Bachelor of Computing Systems (BCS) is a three-year full-time (or equivalent part-time) undergraduate degree programme, providing a proven pathway into an IT career in one of a myriad of technology-based roles. These range from internet, web and mobile devices and enterprise software development, through infrastructure provisioning and support, industrial automation and machine learning, to data and database administration, analytics, and IT Management.

In particular, the programme is designed to:

- Provide a well-defined and relevant core curriculum, with scope for rapid and flexible adoption of new technologies as the frontiers of knowledge expand.
- Prepare you to be effective in a variety of professional roles, with the technical expertise needed to be productive in the chosen discipline.
- Promote independent learning and professionalism to ensure productivity and continued relevance.
- Provide flexible study modes to enable you to personalize your programme of study.
- Embed critical thinking and problem solving exercises to extend learner analysis and research and delivery.

You are warmly invited to make an appointment to discuss your study options with our staff, and to view our facilities.

Career and study opportunities

Entry-level IT roles and career prospects for graduates with sufficient work experience, include:

- Software Developer / Programmer
- Network Support Administrator
- Web Administrator
- Network Security and Data Protection
- Data Analyst
- Industrial Automation Technician
- Project Leader
- Information Systems Manager
- Hardware Technician
- Internet Developer
- Database Administrator
- Systems Analyst
- Systems Engineer
- Systems Designer
- Computer Consultant

Further your study with a postgraduate qualification on offer across the Te Pūkenga network.



Bachelor of Computing Systems Level 7, 360 credits



Hawke's Bay and Tairāwhiti



Full-time: 3 years

Part-time: equivalent



Fee:

Visit fees.eit.ac.nz to see the fees for this programme



2024 Key Dates

Intake one

Starts: Monday, 19 February

Year ends: Friday, 29 November

Intake two

Starts: Monday, 22 July

Year ends: Friday, 27 June 2025

Semester breaks

Intake one:

15-26 April

1-19 July

30 September-11 October

Intake two:

30 September-11 October

29 November-17 February 2025

Industry-based training

The BCS aims to deliver graduates possessing a broad range of practical skills, therefore all courses include a significant practical component. There are two compulsory Level 7, 30-credit capstone courses requiring learners to complete either a 600 hour internship IT role, embedded within a suitable organisation, or to undertake approved information systems analysis and development work in a commercial environment. The capstones are completed over the last two terms of study.

Partnerships

EIT | Te Pūkenga is proud of our relationship with local IT providers and employers, which ensures the continuing relevance of our courses, and leverages our qualifications and resources for the benefit of learners, employers and the region.

Degree electives

A list of degree electives from other degree programmes as elective courses is available from our website eit.ac.nz or by calling us on 0800 22 55 348.

Timetable

Your study time will be made up of on-campus instruction (lectures, laboratories and tutorials) and non-contact time (your own individual study time, online learning).

Contact time

On-campus classes are usually scheduled between 8.00am-5.00pm, Monday to Friday.

Each course will have four hours of scheduled class time per week, and will ordinarily require an additional six hours of individual study time per week.

A full-time study workload would ordinarily include four concurrent 15 credit courses per term, requiring a dedicated 40 hours per week.

Additional costs

- \$120 approximately per course for textbooks and/or equipment

You are advised to purchase suitable equipment to sustain studies in the computer field, and BYOD is encouraged for use in class, though workstations are supplied for all laboratory work.

Entry requirements

A personal interview may be part of the application process.

Applicants must meet one of the following criteria:

- University Entrance; or
- The NZ Certificate in Information Technology Essentials (Level 4); or
- An equivalent qualification.

Provisional entry

Applicants who do not meet the criteria above, but present evidence of ability to succeed (e.g. maturity, life experience, work experience, other study) may be provisionally admitted into the programme. Entry to subsequent study is conditional on satisfactory academic progress.

Alternatively, applicants may be advised to enrol in either:

1. The stand-alone NZ Certificate in Information Technology (Level 4). Upon successful completion of this programme graduates would be eligible for enrolment in the BCS; or
2. The NZ Certificate in IT Essentials (Level 5). Upon successful completion of this programme graduates would be eligible for enrolment onto the second year of the BCS.

EIT | Te Pūkenga may apply discretion to these regulations in exceptional circumstances.

Other requirements

Mathematics, Algebra, and Computer literacy is highly recommended in order to be able to cope with the conceptual and practical components of this programme.

Please note:

- Entry to subsequent study is conditional on proven prior successful outcomes.

English language entry requirements

Applicants whose first language is not English must have an acceptable level of English language fluency prior to enrolment in the programme. This may be demonstrated in a variety of ways, including schooling in New Zealand, completion of the relevant New Zealand Certificate in English Language, approved scores on IELTS tests, or completion of accepted international equivalents. Specific scores for IELTS and New Zealand Certificates in English Language are as follows:

- IELTS 6.0 Academic (no band score lower than 5.5)
- NZCEL Level 4 with an Academic endorsement

For acceptable alternatives refer to the English Proficiency Outcomes Chart.

Entry with credit

You may already have some knowledge or skills which could be recognised and credited against your intended study programme, including study while at secondary school, study at a private training establishments, workplace training and experience, other tertiary study, life experience or voluntary work. If you think you may qualify, you should apply for Cross Credit (CC) or Recognition of Prior Learning (RPL).

- CC is based on the equivalency of courses or qualifications. You would apply for CC if you have passed a very similar course at the same level.
- RPL is based on the assessment of your current knowledge and skills. You would apply for RPL if you have gained the relevant knowledge and skills through life experiences and informal learning situations.

As part of your application, you will need to provide sufficient details and corroboratory evidence, to support your request for academic credit towards your intended programme of study.

You must apply prior to enrolment. CC and RPL cannot be awarded for a course if you are already enrolled in that course. An original transcript or notice of results from the institute at which you previously studied (or verified copies) will be required for all applications.

For further information and enquiries about CC and RPL, contact the Programme Administrator, Aman Kaur on 06 830 1203.



Facilities

The Hawke's Bay campus includes modern lecture theatres and classrooms. The School of Computing is based in the purpose-built three story Information Technology building, and includes a 50-seat lecture theatre, and nine fully networked computer laboratories using 24 or 30 learner workstation configurations, particularly suited to software, hardware or project-based or media studies. All rooms are environmentally controlled and include multimedia presentation and teaching equipment.

Assessments

All assessments in the BCS courses are marked internally. Assessments include assignments, tests and practical demonstrations.

Year 13 scholarship

EIT | Te Pūkenga offers a limited number of Year 13 Scholarships to eligible Taupō, Hawke's Bay and Tairāwhiti (Gisborne) learners who are beginning an undergraduate degree in 2024. You can study any one of our 13 degrees or selected level 5 certificate and diploma programmes that pathway into a degree.

If you live outside the Taupō, Hawke's Bay or Tairāwhiti regions there are scholarships available nationwide for a selected few programmes. Go to scholarships.eit.ac.nz to find out which programmes you can apply for.

For full information about the Year 13 Scholarship check out scholarships.eit.ac.nz, email scholarships@eit.ac.nz or text your name, address and the word YR13 to 4631 and we will send you a Year 13 Scholarship pack.

EIT is now part of Te Pūkenga

Te Pūkenga brings together New Zealand's Institutes of Technology, Polytechnics, and Industry Training Organisations to build a network of on job, on-campus and online learning.

The services we offer not only remain, they are strengthened by being part of the extensive Te Pūkenga network around the country. Your enrolment for study in 2024 will see you enrolling with Te Pūkenga and becoming part of the extensive Te Pūkenga network around the country.

The experience you need & the support to succeed

When you study at EIT | Te Pūkenga you'll get the kind of experiences that will help you gain the knowledge and skills to get ahead.

You'll also be supported by lecturers and tutors who are here for you, within a learning environment where you are treated as an individual, not just a number.

They'll know your name and you'll receive one-on-one attention to make sure you get the support to succeed.

Experienced lecturers

At EIT | Te Pūkenga, you can be confident in the quality of our teaching and your learning experience.

EIT | Te Pūkenga is highly regarded in New Zealand for research excellence due to the quality of our community centred research, our publications and our external grant income provided by funding institutions who have confidence in our research capability. You can be confident your lecturers use the latest knowledge and research in their field of expertise to inform their teaching, and many are at the forefront of knowledge creation within their discipline area.

Our lecturers are highly trained professionals with particular areas of expertise in information systems. Staff also maintain contact with other professionals through organisations such as the Institute of Information Technology Professionals.

Name	Qualification
Ian Purdon <i>Programme Coordinator</i>	BBS (Econ), DipBus (IS), PGDipIT
John Jamieson <i>Course Coordinator</i>	MIT, BTech (Info Tech), NDipIT
Hawke's Bay campus	
Dr Daniel Dang	PhD
Dr Emre Erturk	PhD, MS, BA
Dr Noor Alani	PhD
Graham Ward	PGDipIT (in progress)
Istvan Lengyel	MIT, PgDipSc
Karam Khokra	MSc, MIT (CompEng), BSc, NZCertAdTT
Robyn Pascoe	BCS, DipBC
Tairāwhiti campus	
Ian Allan	BCS
Ken York	ME, BSc
Tina Blumenthal	PGDipIT, BCS



Programme information

To graduate with a BCS Degree, learners must have passed degree courses at Level 5 to 7 worth 360 credits, including the two 30-credit capstones undertaken during the last two terms of study. The structure of the degree is summarised in the following table. The courses and their co-requisites and pre-requisites are appended.

These courses are subject to change please contact the Programme Administrator for an up to date course list.

EIT | Te Pūkenga reserves the right to change timetables. Courses may be offered in different timeslots or cancelled if there is insufficient enrolment. Textbooks and/or equipment are required for several courses - these additional costs are not included in the course fees noted.

Level	5	6	7	electives 6-7	Total
Credits	120	120	90	30	360

Course descriptions

PLEASE NOTE: This programme is currently being unified with others across Te Pūkenga to provide one programme that is portable, consistent, and more closely aligned with the needs of industry. This is a good thing, but does mean that there will be some changes to the information below. Enquire at eit.ac.nz to receive the latest updates on the new programme.

NB: Courses are offered subject to sufficient enrolments being received.

In the following descriptions: Pre-requisite = courses which must be studied before.

Co-requisite = courses which can be studied before or at the same time.

The courses we are offering for the Bachelor of Computing Systems (Hawke's Bay) in 2024 are as follows:

Year one - Level 5

Course no.	Brief description	NZQA level	No. of credits
ITIS5.450	Information Systems To provide learners with an economic and organisational context and the skills to identify requirements and suitable solutions in the application of Information Technologies and Systems.	5	15
ITUX5.210	UX and UI Fundamentals To equip learners with knowledge and skills to elicit requirements for human-computer interfaces, and to design, prototype, and evaluate user experiences and interface designs.	5	15
ITDT5.228	Introduction to Data Concepts To provide learners with fundamental knowledge and skills of the data concepts central to all Information Systems.	5	15
ITPM5.240	Agile Projects To provide learners with fundamental project management concepts and skills used in an IT context.	5	15
ITPF5.110	Programming Fundamentals To provide learners with the core knowledge and skills, using software development tools to create a working application to meet given requirements.	5	15
ITWD5.130	Website Development To provide learners with the knowledge and skills to create a static website which meets a specific client brief.	5	15
ITCS5.100	Computer Systems Architecture This course provides learners with the knowledge and skills required to successfully plan, construct, and maintain, a modern PC-based computer system, with emphasis placed on safe and effective industry practices.	5	15
ITCT5.120	IT Concepts And Tools To provide learners with the knowledge and skills of IT tools and concepts used within organisations, and their impact on business and professional communication practices.	5	15

Year two - Level 6

Course no.	Brief description	NZQA level	No. of credits
	Project Management		
ITPM6.318	To provide learners with the knowledge and skills of formal project methodologies, using best-practice project management frameworks and techniques to select, plan, execute and control projects to successful conclusion.	6	15
	Systems Analysis		
ITSD6.348	To provide learners with the knowledge and skills to analyse complex information systems, identify problems and requirements and document and model these findings using appropriate methods, tools and diagrams. <i>Pre-requisite: ITIS5.540 Information Systems ITDT5.228 Introduction to Data Concepts</i>	6	15
	Systems Design		
ITSD6.349	To provide learners with the knowledge and skills to design information systems solutions, using appropriate modelling, prototyping and documentation tools and methods. <i>Pre-requisite: ITSD6.348 Systems Analysis</i>	6	15
	Advanced Object-Oriented Programming		
ITPR6.508	To provide learners with the knowledge and skills to design and develop software using all the facilities of an object-oriented programming language, and object-oriented design modelling and concepts. <i>Pre-requisite: ITPF5.110 Programming Fundamentals</i>	6	15
	Electronics and Internet of Things Technology		
ITHW6.238	To provide learners with appropriate knowledge of electronics and technical skills required to work with in a computing hardware in an IoT setting. <i>Pre-requisite: ITC5.100 Computer System Architecture</i>	6	15
	User Experience and User Interfaces		
ITPR6.358	To provide learners with knowledge and skills of industry based theory and methods for the design and development of successful user interfaces, user experience (UX), and prototyping.	6	15
	Digital Forensics Fundamentals		
ITDF6.100	To equip learners with the knowledge and skills to use appropriate computer forensics tools and techniques to contribute towards diagnostics and evidence gathering. <i>Pre-requisite: ITSD6.348 Systems Analysis</i>	6	15
	Enterprise Software Development		
ITPR6.518	To provide learners with the knowledge and skills to design, develop, maintain and deploy software to support enterprise systems. <i>Pre-requisite: ITPR6.508 Advanced Object-Oriented Programming</i>	6	15
	Database Management Systems		
ITDB6.208	To provide learners with the knowledge and skills to apply the principles of database design and management using database software, to create and implement a database using standard database tools. <i>Pre-requisite: ITDT5.228 Introduction to Data Concepts</i>	6	15
	Operating Systems		
ITOS6.608	To provide the learners with a general understanding of a modern operating system and the necessary skills to install and carry out various administrative tasks. <i>Pre-requisite: ITC5.100 Computer System Architecture</i>	6	15
	Automation and Embedded Systems		
ITAE6.100	To introduce learners to the theory and application of industrial automation, with focus on how to build solutions to real-world problems using embedded systems. <i>Pre-requisite: ITC5.100 Computer System Architecture Co-requisite: ITHW6.238 Electronics and IoT</i>	6	15
	Maths in Information Technology		
ITMA6.240	To provide learners with relevant mathematics theory and skills for use in general and applied IT. <i>Pre-requisite: ITDT5.228 Introduction to Data Concepts</i>	6	15

Course no.	Brief description	NZQA level	No. of credits
ITKM6.398	Knowledge Management To provide learners with the theory, tools and skills to retain and use institutional knowledge and the practical strategies to implement KM programmes into the workplace. <i>Pre-requisite: ITIS5.450 Information Systems</i>	6	15
ITWD6.408	Advanced Internet and Web Page Development To provide learners with the knowledge and skills of client-side web development and website management. <i>Pre-requisite: ITWD5.130 Website Development</i>	6	15
ITDC6.218	Data Communications and Networking To equip learners with practical skills in switched networking environments. Learners will apply knowledge from Level 5 Computer System Architecture to design and implement networks using modern data communications tools and equipment. <i>Pre-requisite: ITCS5.100 Computer System Architecture</i>	6	15
ITNA6.258	Advanced Network and the Cloud To provide learners with general knowledge of a Network Operating System, and the necessary skills to install and carry out various administrative tasks. <i>Pre-requisite: ITCS5.100 Computer System Architecture</i> <i>Co-requisite: ITDC6.218 Data Communications and Networking</i>	6	15

Year three - Level 7

Course no.	Brief description	NZQA level	No. of credits
ITST7.408	Special Topic	7	15
ITSY7.668	Cybersecurity To provide learners with the knowledge and skills to apply information systems security/forensics concepts, identify security risks, and derive contingency plans and policies. <i>Pre-requisite: ITDC6.218 Data Communications and Networking</i>	7	15
ITDA7.240	Data Analytics To provide learners with knowledge and skills to use industry standard data analysis tools and techniques to derive and present meaningful and useful information. <i>Pre-requisite: ITPF5.110 Programming Fundamentals</i> <i>ITDT5.228 Introduction to Data Concepts</i> <i>ITDB6.208 Database Management Systems</i> <i>ITMA6.240 Maths in IT</i>	7	15
ITGA7.100	GIS Analytics To provide learners with knowledge and skills to use appropriate GIS analytics tools and techniques to present meaningful and useful GIS information. <i>Pre-requisite: ITDB6.208 Database Management Systems</i>	7	15
ITPR7.508	Business Application Programming To provide learners with knowledge and skills to develop a business application from a specification. <i>Pre-requisite: ITPR5.518 Introduction to Object-Oriented Programming</i> <i>ITPR6.508 Advanced Object-Oriented Programming</i> <i>ITWD6.408 Advanced Internet and Web Page Development</i>	7	15
ITWD7.358	Web Application Programming To provide learners with the knowledge and skills to develop client-server web-based application. <i>Pre-requisite: ITPR5.518 Introduction to Object-Oriented Programming</i> <i>ITIM5.238 Internet and Mobile Technology</i> <i>ITWD6.408 Advanced Internet and Web Page Development</i>	7	15
ITEC7.398	E- Business Strategies To provide learners with the knowledge and skills to evaluate and analyse the drivers of successful e-business strategies for organisations. <i>Pre-requisite: ITKM6.398 Knowledge Management</i>	7	15

Course no.	Brief description	NZQA level	No. of credits
ITHW7.238	Enterprise Support and Infrastructure To provide learners with the technical knowledge and skills to plan, prepare, and manage, a range of enterprise technologies, configurations, and infrastructure. <i>Pre-requisite:</i> ITET6.238 Electronics and Technology in IT ITDC6.218 Data Communications and Networking	7	15
ITAI7.110	Machine Learning and Artificial Intelligence To provide learners with the knowledge and skills to apply machine learning and artificial intelligence theories and technologies to solve real-world problems. <i>Pre-requisite:</i> ITAE6.100 Automation and Embedded System ITHW6.238 Electronics and IoT	7	15
ITFM7.120	Mechatronics in IT To provide learners with knowledge and skills of feedback control, electro-mechanical system interfaces, and the software and electronics that enable robotics. <i>Pre-requisite:</i> ITAE6.100 Automation and Embedded System ITHW6.238 Electronics and IoT <i>Co-requisite:</i> ITAI7.110 Machine Learning and Artificial Intelligence	7	15
ITCP7.001	Capstone 1 To provide the learners with the knowledge and skills to undertake an in-depth focussed investigation into aspects of a chosen Information Technology domain. <i>Pre-requisite:</i> A pass in ALL Level 5 and 6 courses	7	30
ITCP7.002	Capstone 2 To provide learners with the opportunity to apply the knowledge and skills gained during their computing studies in a organisational context. <i>Pre-requisite:</i> A pass in ALL Level 5 and 6 courses	7	30



How to enrol

There is an easy 3-step process to follow when enrolling at EIT | Te Pūkenga.

Step 1

Check out the programmes online at eit.ac.nz to see the programmes available for you to study. A copy of the course information for each programme is available online.

Step 2

You can now use your RealMe verified identity to apply for study at EIT | Te Pūkenga. If you use your RealMe verified identity you will no longer be sent a copy of your application form to sign. You also will not need to provide us with a copy of your primary ID.

If you apply online without using RealMe then you will be sent a summary of your enrolment to check and sign. It will also include course selection forms which you need to complete and return. Your enrolment cannot progress until you have sent the summary and forms back to us.

You can also apply using a paper enrolment form. Please call us on 0800 22 55 348 and we will send you one out.

You will receive an acceptance letter from your Faculty with programme information. This will include the start date of your study and any special information regarding your programme. Depending on your chosen programme of study, you may be invited to attend an interview before you are accepted.

Step 3

Arrangement for full payment of enrolment fees must be made before the start of your programme. You will receive an invoice with payment details.

Fees-free government scheme: Tertiary education is fees-free for eligible domestic tertiary students. To check if you are eligible, go to [FeesFree.govt.nz](https://feesfree.govt.nz) and enter your National Student Number (NSN). If you are not eligible you will be responsible for paying your fees.

Scholarships and grants: Scholarships and grants make life easier by helping to cover your fees, other costs and living expenses while you study. You don't always need to be an academic high-flyer to qualify. You can find out more about scholarships and other options for paying your fees at eit.ac.nz.

StudyLink: If you need to pay for your own study you can choose to apply for your Student Loan and Student Allowance with StudyLink. You should do this early, even if you haven't yet been accepted on your programme. You can change your details later if anything changes. Visit studylink.govt.nz to find out more about StudyLink.

Student services levy

The student services levy is a compulsory non-tuition fee that is charged to students enrolled at EIT | Te Pūkenga. The levy is to contribute to the provision of quality student services that support learning. The funds received by EIT | Te Pūkenga from the levy are ring-fenced, meaning they can only be spent on student services.

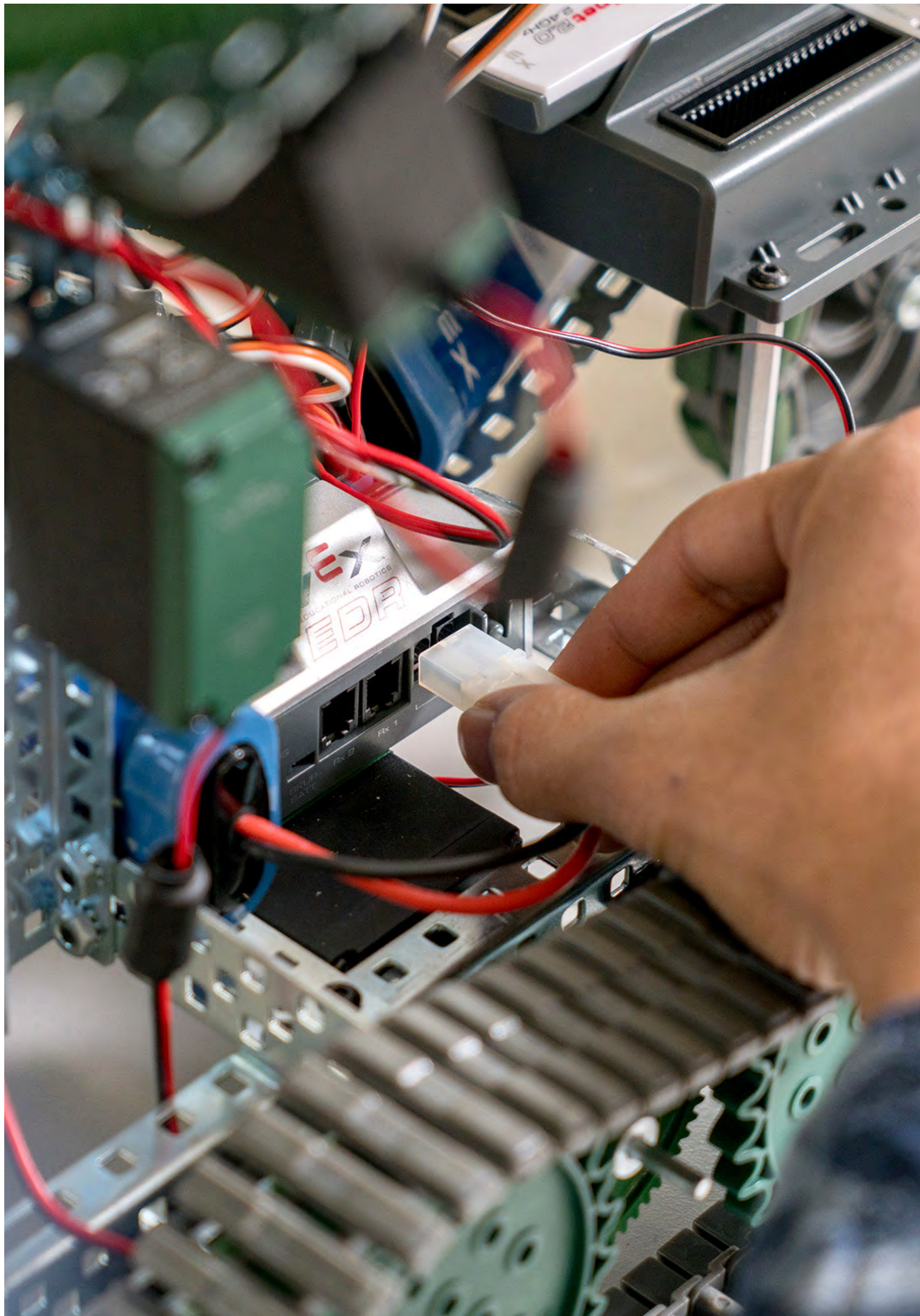
Student loans and allowances

StudyLink is a service of the Ministry of Social Development. Apply well before your programme begins (even if you haven't been accepted yet) so you'll be ready to get your payments when you need them most.

Check out what you qualify for at studylink.govt.nz.



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Apply now for 2024

eit.ac.nz

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Taradale, Napier 4112

Tairāwhiti campus

290 Palmerston Road
Gisborne 4010



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