CIPS - Canadian Information Processing Society

Growing Ethical IT Talent in Canada

Join Canada's Association of IT Professionals Today!

www.cips.ca info@cips.ca

21 March 2024

HISTORY

In September **1958** a dedicated group of data processors got together to talk about common concerns.

That conference demonstrated the **value of sharing ideas, networking with fellow professionals, and learning about changes in technology**

This event sparked the formation of the Computing and Data Processing Society of Canada.

In 1968 the society changed its name to the current **Canadian Information Processing Society (CIPS)**

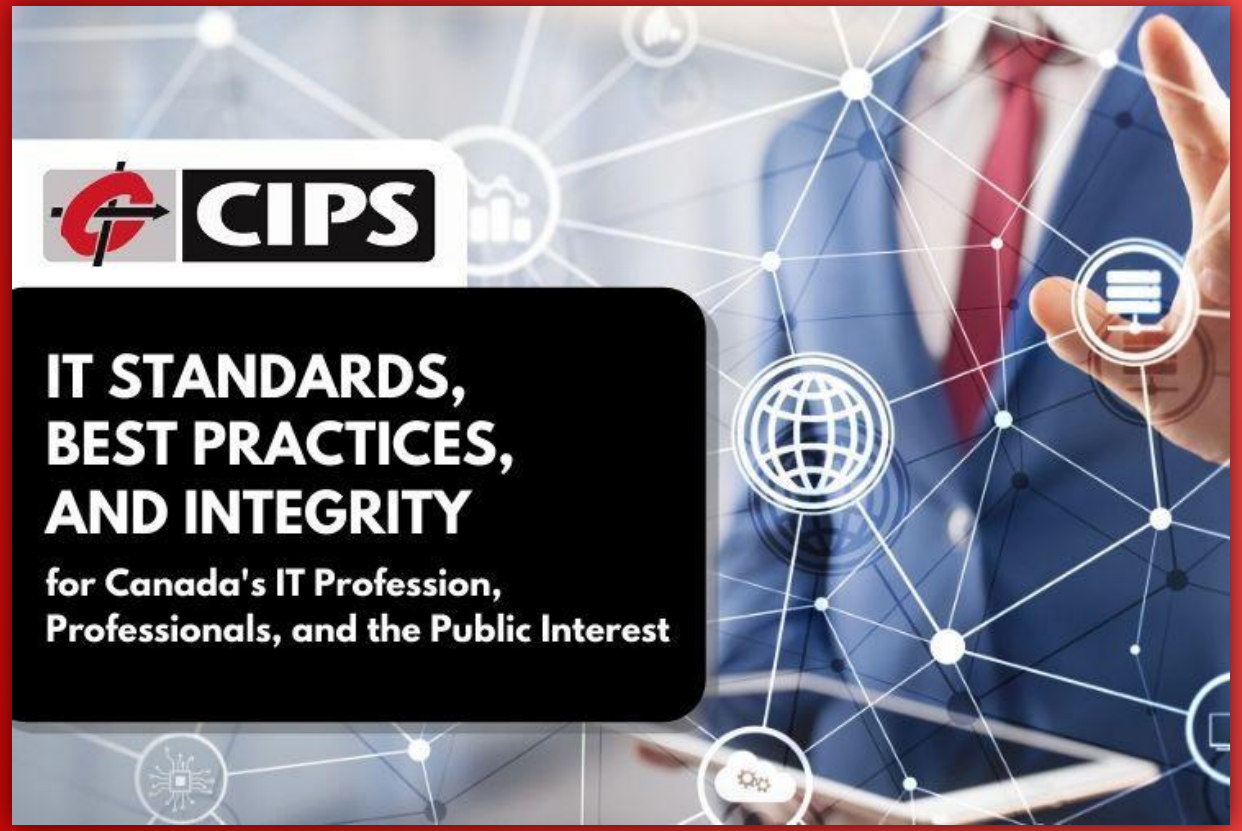
Founder of CIPS and "Father of Computing in Canada" Calvin C. (Kelly) Gotlieb (1921 –2016)

FAST FACTS

- Establishing standards and best practices for IT professionals since 1958
- CIPS is an IT Federation of 10 CIPS Provincial societies that license IT professionals locally and abroad
- Each CIPS Provincial Society is a community of IT Professional members, providing networking and professional development opportunities
- Since 1989 the I.S.P. Designation is Canada's only legally recognized designation for IT professionals (*BC, AB, SK, ON, NB, NS)
- Since 2008 the ITCP Designation is Canada's only internationally IP3P accredited designation for senior IT professionals

MISSON

- **Protect the public** through ethical and skilled IT Professionals and practice in Canada
- Develop and align **IT standards** for IT Professionals and Accredited programs
- Increase **recognition of the IT profession** to Industry, Government, Academia, and Public
- Develop and maintain the **integrity and competence** of individuals active in IT
- Advance the theory and practice of IT and promote **sharing of information**
- Establish **public awareness** of the potential impact and misuse of IT



RELATIONSHIPS

Corporate Partners

Electronic Recycling Association

IT World Canada

SkillsTX

Bell

International Relationships

FEAPO (Federation of Enterprise Architects Professional Organizations)

IFIP (International Federation for Information Processing)

IP3 (The International Professional Practice Partnership)

Responsible AI Institute

Seoul Accord

SFIA (Skills Framework for the Information Age)

Community

AAAC (Association of Accrediting Agencies of Canada)

BTM

Catalyste+

CIO Association of Canada

CS-Can | Info-Can

Data Collaboration Alliance

Digital Governance Council

DPI (The Association of Public Sector Information Professionals)

ICCP (Institute for Certification of Computing Professionals)

ICTC (Information and Communications Technology Council

Réseau ACTION TI

Technation

The Career Foundation

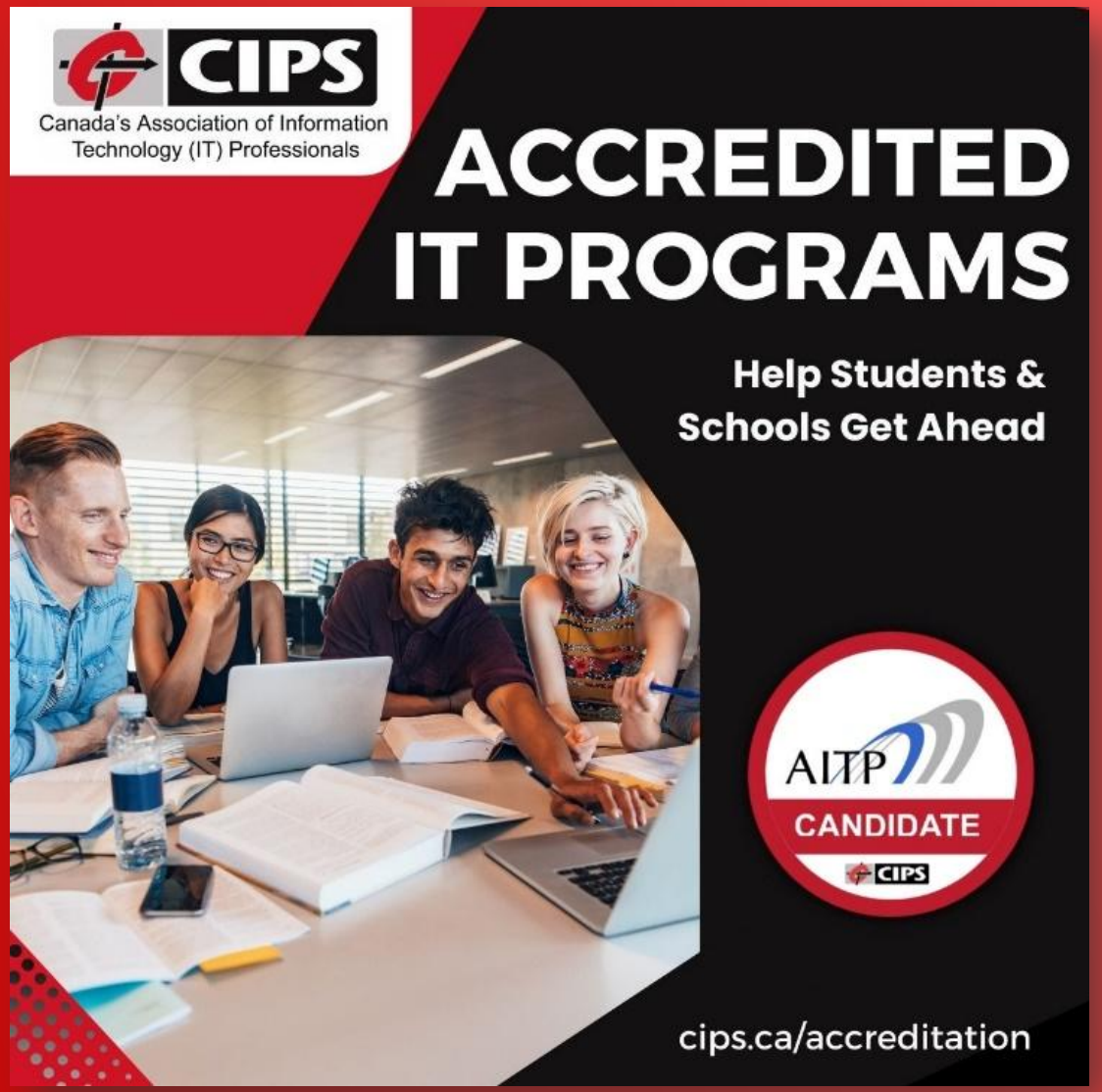
WYWM

ACCREDITATION

The CIPS Accreditation team visits universities and colleges to review their IT programs and ensure they meet educational standards and requirements

CIPS Accredited programs can be viewed at:
cips.ca/accreditation

Graduates of CIPS Accredited programs are eligible for the **AITP Designation** and **One Year of Free CIPS Candidate Membership**

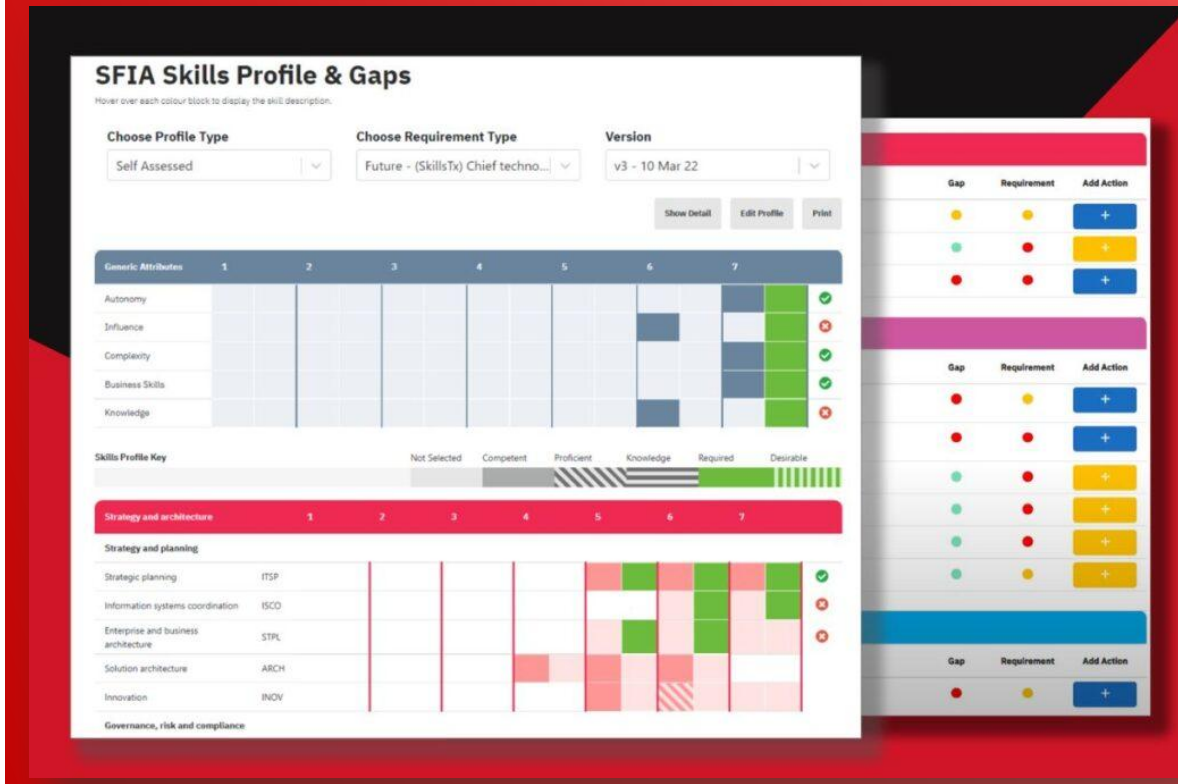


MEMBER BENEFITS

- Skills Assessment and Career Planning
- Certification of IT professionals
- Networking opportunities
- Events and Professional Development
- Community Discussion Forums
- Volunteer to build new skills
- A niche IT Job Board
- Discounts on a variety of products and services

SKILLS ASSESSMENT & CAREER PLANNING

- Assess your current IT skills with the international SFIA framework (Skills Framework for the Information Age)
- Take a survey to discover your current skills and get a skills assessment report
- Use the planner to edit and update your skills throughout the year
- Set career goals and compare the skills you have to the skills you need to progress in your career
- Create an action plan to develop target skills



CIPS.CA/SKILLS-ASSESSMENT

SFIA FRAMEWORK

120+ defined skills
- SFIA defines skills and competencies required by professionals who design, develop, implement, manage and protect data and technology
- detailed descriptions for more than 120 professional skills

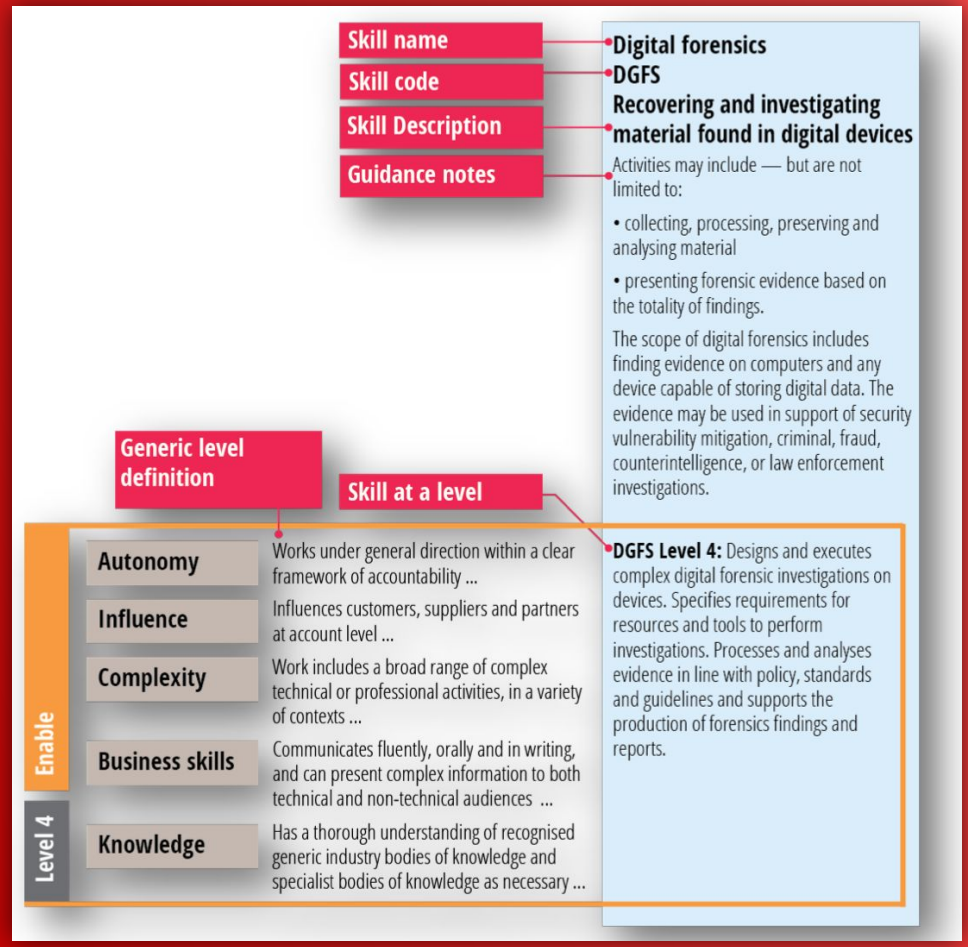
Global footprint
- 180+ countries, translated into 12+ languages

An industry role comprises one or more SFIA skills
- any industry role can be built from SFIA Levels of Responsibility and SFIA Professional Skills

Not just an IT Framework
- Includes non-IT skills that can be used for wider industry roles and professions

Not just for large companies
- SFIA can be used by large companies, SMEs, and by individuals
- Can be used by countries for national skills and competency initiatives

SFIA



SFIA FRAMEWORK

SFIA 8 Summary Chart

The global skills and competency framework for the digital world

Strategy and architecture

		1	2	3	4	5	6	7
Strategy and planning								
Strategic planning	ITSP					5	6	7
Information systems coordination	ISCO						6	7
Information management	IRMG				4	5	6	7
Enterprise and business architecture	STPL					5	6	7
Solution architecture	ARCH				4	5	6	
Innovation	INOV					5	6	7
Emerging technology monitoring	EMRG				4	5	6	
Research	RSCH	2	3	4	5	6		
Demand management	DEMM					5	6	
Investment appraisal	INVA				4	5	6	
Financial management	FMIT				4	5	6	
Measurement	MEAS			3	4	5	6	
Sustainability	SUST				4	5	6	
Continuity management	COPL	2	3	4	5	6		
Security and privacy		1	2	3	4	5	6	7
Information security	SCTY			3	4	5	6	7
Information assurance	INAS			3	4	5	6	7
Personal data protection	PEDP					5	6	
Vulnerability research	VURE			3	4	5	6	
Threat intelligence	THIN	2	3	4	5	6		
Governance, risk and compliance		1	2	3	4	5	6	7
Governance	GOVN						6	7
Risk management	BURM			3	4	5	6	7
Audit	AUDT			3	4	5	6	7
Quality management	QUMG			3	4	5	6	7
Quality assurance	QUAS			3	4	5	6	
Advice and guidance		1	2	3	4	5	6	7
Consultancy	CNSL				4	5	6	7
Specialist advice	TECH				4	5	6	
Methods and tools	METL			3	4	5	6	

Change and transformation

		1	2	3	4	5	6	7
Change implementation								
Portfolio management	POMG					5	6	7
Programme management	PGMG						6	7
Project management	PRMG				4	5	6	7
Portfolio, programme and project support	PROF	2	3	4	5	6		
Change analysis		1	2	3	4	5	6	7
Business situation analysis	BUSA			3	4	5	6	
Feasibility assessment	FEAS			3	4	5	6	
Requirements definition and management	REQM	2	3	4	5	6		
Business modelling	BSMO	2	3	4	5	6		
Acceptance testing	BPTS	2	3	4	5	6		
Change planning		1	2	3	4	5	6	7
Business process improvement	BPRE					5	6	7
Organisational capability development	OCDV					5	6	7
Organisation design and implementation	ORDI				4	5	6	7
Organisational change management	CIPM			3	4	5	6	
Benefits management	BENM					5	6	

Development and implementation

		1	2	3	4	5	6	7
Systems development								
Product management	PROD				3	4	5	6
Systems development management	DLMG						5	6	7
Systems and software life cycle engineering	SLEN					4	5	6	7
Systems design	DESN				3	4	5	6
Software design	SWDN			2	3	4	5	6
Network design	NTDS				3	4	5	6
Hardware design	HWDE				3	4	5	6
Programming/software development	PROG			2	3	4	5	6
Systems integration and build	SINT			2	3	4	5	6
Testing	TEST	1	2	3	4	5	6	
Software configuration	PORT				3	4	5	6
Real-time/embedded systems development	RESD			2	3	4	5	6
Safety engineering	SFEN				3	4	5	6
Safety assessment	SFAS					4	5	6
Radio frequency engineering	RFEN			2	3	4	5	6
Animation development	ADEV				3	4	5	6
Data and analytics		1	2	3	4	5	6	7
Data management	DATM					4	5	6
Data modelling and design	DTAN			2	3	4	5	
Database design	DBDS				3	4	5	
Data engineering	DENG			2	3	4	5	6
Database administration	DBAD			2	3	4	5	
Data science	DATS			2	3	4	5	6	7
Machine learning	MLNG			2	3	4	5	6
Business intelligence	BINT			2	3	4	5	
Data visualisation	VISL				3	4	5	
User experience		1	2	3	4	5	6	7
User research	URCH				3	4	5	6
User experience analysis	UNAN				3	4	5	
User experience design	HCEV				3	4	5	6
User experience evaluation	USEV			2	3	4	5	6
Content management		1	2	3	4	5	6	7
Content authoring	INCA	1	2	3	4	5	6	
Content publishing	ICPM	1	2	3	4	5	6	
Knowledge management	KNOW		2	3	4	5	6	7
Computational science		1	2	3	4	5	6	7
Scientific modelling	SCMO				4	5	6	7
Numerical analysis	NUAN				4	5	6	7
High-performance computing	HPCC				4	5	6	7

Relationships and engagement

		1	2	3	4	5	6	7
Stakeholder management								
Sourcing	SORC		2	3	4	5	6	7
Supplier management	SUPP		2	3	4	5	6	7
Contract management	ITCM			3	4	5	6	
Stakeholder relationship management	RLMT				4	5	6	7
Customer service support	CSMG	1	2	3	4	5	6	
Business administration	ADMN	1	2	3	4	5	6	
Sales and marketing		1	2	3	4	5	6	7
Marketing	MKTG		2	3	4	5	6	
Selling	SALE			3	4	5	6	
Sales support	SSUP	1	2	3	4	5	6	

Delivery and operation

		1	2	3	4	5	6	7
Technology management								
Technology service management	ITMG					5	6	7
Application support	ASUP		2	3	4	5		
IT infrastructure	ITOP	1	2	3	4	5		
System software	SYSP			3	4	5		
Network support	NTAS		2	3	4	5		
Systems installation and removal	HSIN	1	2	3	4	5		
Configuration management	CFMG		2	3	4	5	6	
Release and deployment	RELM			3	4	5	6	
Storage management	STMG			3	4	5	6	
Facilities management	DCMA			3	4	5	6	
Service management		1	2	3	4	5	6	7
Service level management	SLMO		2	3	4	5	6	7
Service catalogue management	SCMG			3	4	5		
Availability management	AVMT				4	5	6	
Capacity management	CPMG				4	5	6	
Incident management	USUP		2	3	4	5		
Problem management	PBMG			3	4	5		
Change control	CHMG		2	3	4	5	6	
Asset management	ASMG		2	3	4	5	6	
Service acceptance	SEAC				4	5	6	
Security services		1	2	3	4	5	6	7
Security operations	SCAD	1	2	3	4	5	6	
Vulnerability assessment	VUAS		2	3	4	5		
Digital forensics	DGFS			3	4	5	6	
Penetration testing	PENT			3	4	5	6	

People and skills

		1	2	3	4	5	6	7
People management								
Performance management	PEMT				4	5	6	
Employee experience	EEXP				4	5	6	
Organisational facilitation	OFCL				4	5	6	
Professional development	PDSV				4	5	6	
Workforce planning	WFPL				4	5	6	
Resourcing	RESC			3	4	5	6	
Skills management		1	2	3	4	5	6	7
Learning and development management	ETMG			3	4	5	6	7
Learning design and development	TMCR			3	4	5		
Learning delivery	ETDL		2	3	4	5		
Competency assessment	LEDA			3	4	5	6	
Certification scheme operation	CSOP		2	3	4	5	6	
Teaching	TEAC		2	3	4	5	6	7
Subject formation	SUBF				4	5	6	7

Levels of responsibility

The SFIA Framework describes seven levels of increasing responsibility, accountability and impact from Level 1, the lowest, to Level 7, the highest.

Each of the seven levels is labelled with a guiding phrase to summarise the level of responsibility.

Level 1 - Follow
Level 2 - Assist
Level 3 - Apply
Level 4 - Enable
Level 5 - Ensure, advise
Level 6 - Initiate, influence
Level 7 - Set strategy, inspire, mobilise

The SFIA Foundation is the global not-for-profit organisation which owns the Skills Framework for the Information Age.
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www.sfia-online.org

SFIA® FOUNDATION

SFIA

Level 7	Set strategy, inspire, mobilise
Level 6	Initiate, influence
Level 5	Ensure, advise
Level 4	Enable
Level 3	Apply
Level 2	Assist
Level 1	Follow

CERTIFICATION

Information Systems Professional (I.S.P.)

Canada's ***only legally recognized designation*** for IT professionals, I.S.P. status provides clients and employers with trusted assurance of an IT professional's knowledge and technical background. I.S.P. standing has been granted in Canada since 1989, and is legislated as a self-regulating designation in six provinces (British Columbia, Alberta, Saskatchewan, Ontario, New Brunswick and Nova Scotia).

Learn More and Apply

ISP Information Systems Professional

Information Technology Certified Professional (ITCP)

Introduced in 2008, the ITCP (*Information Technology Certified Professional*) designation recognizes senior IT professionals and academics who have demonstrated an ability to apply their business and organizational experience in additional to their IT knowledge.

Learn More and Apply

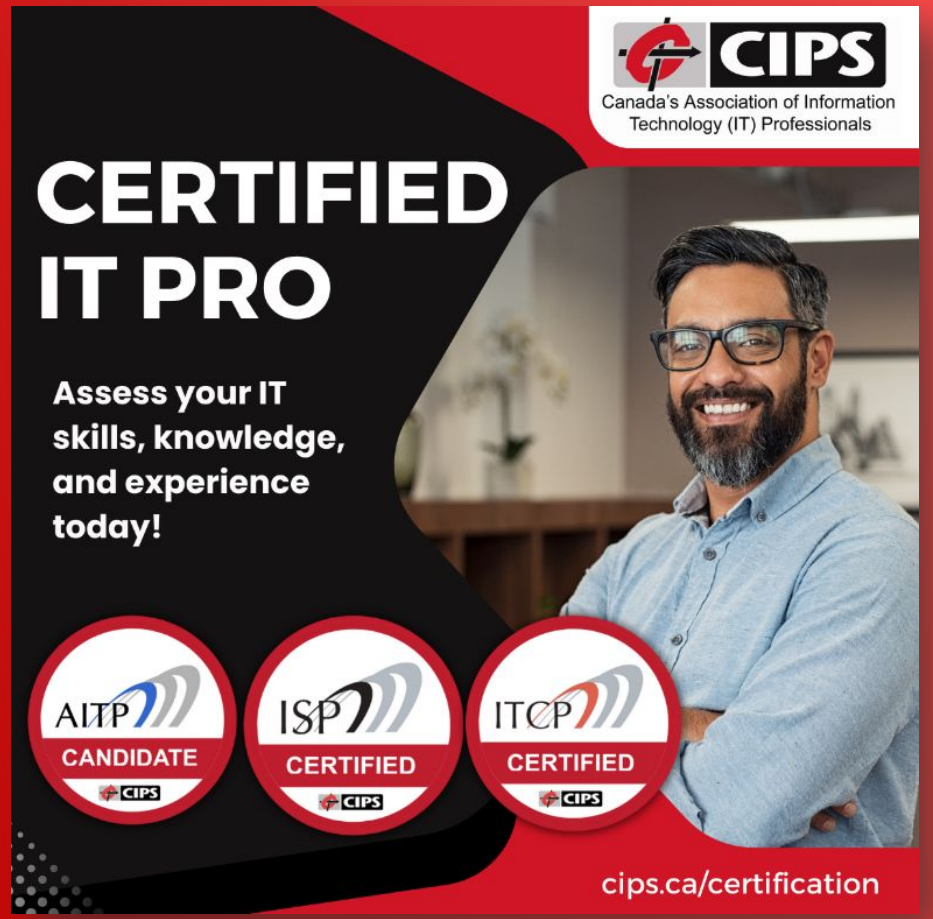
ITCP Information Technology Certified Professional

Associate Information Technology Professional (AITP) / Candidate Membership

The pre-professional AITP designation and *Candidate Membership* is the first step to obtaining Professional I.S.P. status. Candidate Members have recently completed a relevant IT University or College education program, but don't yet have the required experience for the Professional I.S.P. designation.

Learn More and Apply

AITP Associate Information Technology Professional



CERTIFICATION

Application Requirements

1 – CIPS Membership – Attach membership card

2 – Certification Application Review Fee Payment – Attach payment receipt

3 – Pass the CIPS Ethics Exam – Attach Ethics Exam Certificate of Completion

4 – References for the last 2 years or 2 Sponsors if you don't have IT experience – Attach letters

5 – Certification Application – Attach completed application. See below:

— **5.1 – IT EDUCATION – OFFICIAL TRANSCRIPTS / EDUCATION EQUIVALENCY ASSESSMENTS**

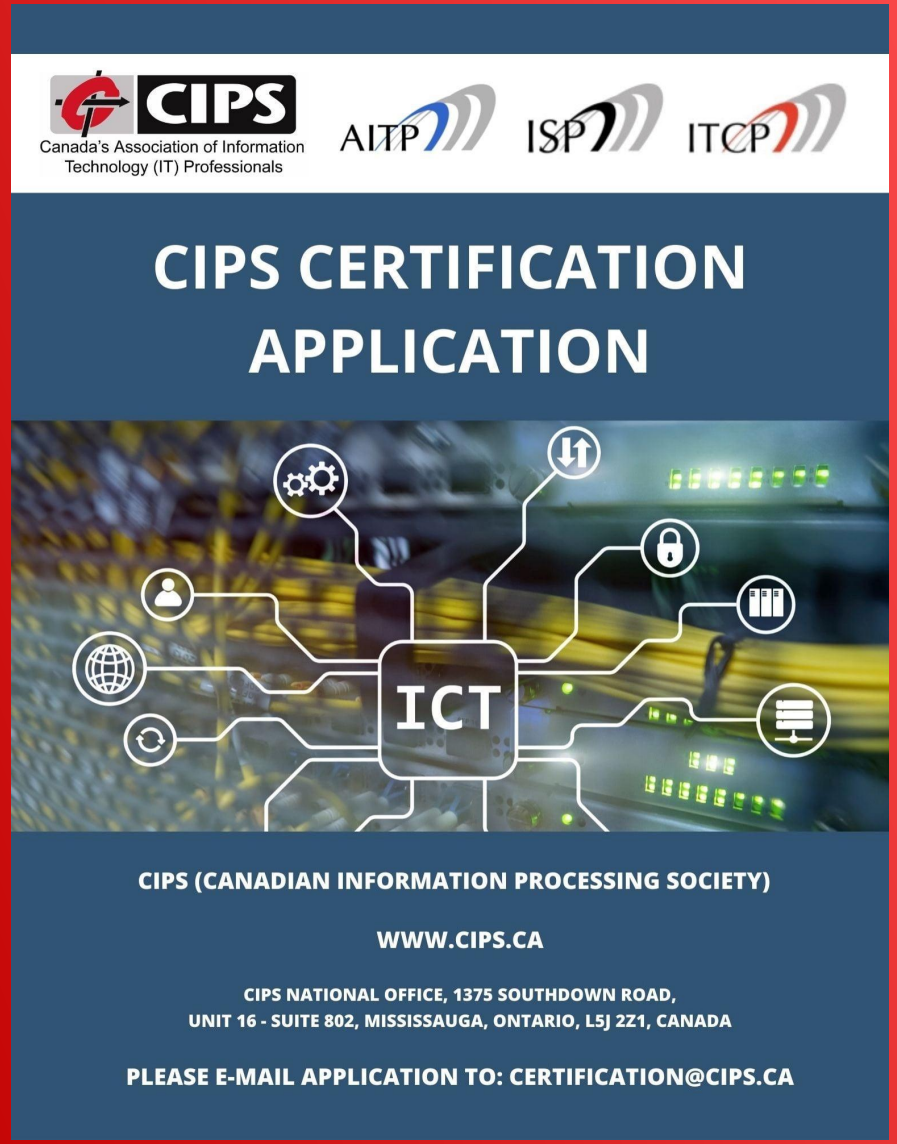
- Attach filled out section "5.1 – Education Review"
- Official transcripts / education equivalency assessments must be sent directly from the institution/assessment center to CIPS (preferably electronically)

— **5.2 – EXPERIENCE**

- Attach filled out section "5.2 – Experience Review"
- Attach Resume/CV
- Attach SFIA skills assessment

Plus:

- At least 1,000 hours of IT work experience in last 12 months – **Requirement for I.S.P. and ITCP**



CERTIFICATION

Application Requirements

AITP **Education**	ISP **Experience**	ITCP **Experience**
AITP holders only have the required Education below, but not the IT professional experience required for the I.S.P. or ITCP. **I.S.P. & ITCP** holders require the education below, along with the experience listed to the right.	**I.S.P.** Minimum Years of IT Professional Work Experience + Currently working at a minimum SFIA Level 3	**ITCP** Minimum Years of IT Professional Work Experience + Last 2 years working at a minimum of SFIA Level 5
Accredited * 4-year University Degree (Computer Science, Software Engineering)	2	1
Accredited 4-year University Degree (Interdisciplinary Programs)	7	6
Accredited * 3-year University Degree (Computer Science, Software Engineering)	3	2
Non-accredited 4-year University Degree (Computer Science, Software Engineering, M.I.S.)	4	3
Non-accredited 3-year University Degree (Computer Science, Software Engineering, M.I.S.)	5	5
Accredited 3-year College/Technical Program	4	3
Accredited 2-year College/Technical Program	5	4
Non-accredited 3-year Public/Private College/Technical Program	6	5
Non-accredited 2-year College/Technical Program	7	6
Accredited one-year post-graduate I.T. program	7	6
Exam Route: ICCP Examinations Leading to CCP (or equivalent)	5	4
Exam Route: British Computer Society (BCS) Diploma Level Exams	5	4
Exam Route: British Computer Society (BCS) Professional Graduate Level Exams	4	3

Experience Only Routes

For applicants with a **NON-IT DEGREE/DIPLOMA** OR **NO DEGREE/DIPLOMAS**.

Demonstration of an established career in IT, generally not less than **8 YEARS OF IT PROFESSIONAL EXPERIENCE**.

I.S.P. Designation:

- **8 years** of IT professional work experience, and currently working at minimum of SFIA level 3

ITCP Designation:

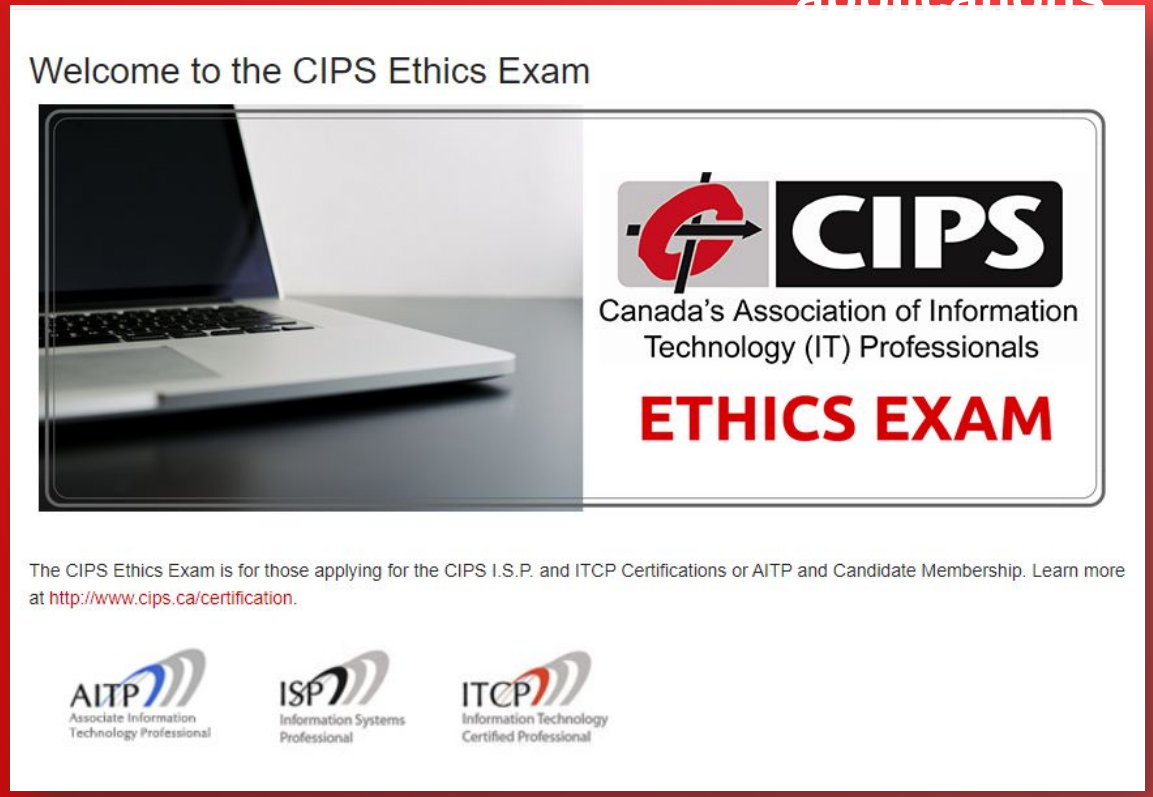
- **8 years** of IT professional work experience, with last 2 years at a minimum of SFIA level 5

CODE OF ETHICS

All CIPS members must agree to abide by the **CIPS Code of Ethics** and its ethical principles/imperatives:

- **Protect the Public Interest and Privacy of Information**
- **Avoid Conflicts of Interest**
- **Take Professional Responsibility**
- **Contribute to the IT Profession**

The CIPS Ethics Exam is also required for CIPS Certification applications*



EXAM.CIPSRESOURCES.CA

IT COMMUNITY FORUM

Participate in a variety of **discussions, network, and share knowledge and resources** with members locally and around the world!

Members can engage in discussions locally within their **CIPS Provincial Society communities**, or with all CIPS Members in **Canada and around the world** in the “IT Water Cooler Forum”.

COMMUNITY.CIPS.CA

EVENTS

Stay informed about IT events and professional development opportunities across Canada

Attend in-person and online events and network with other IT professionals locally or around the world

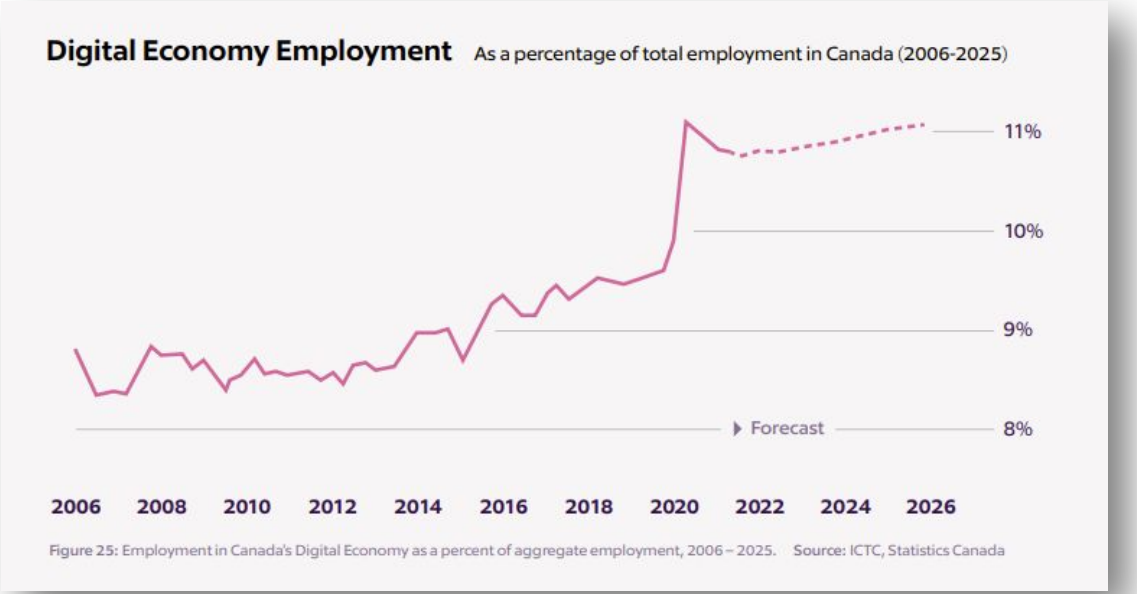
Participate in events hosted by CIPS' Provincial societies and CIPS partners across Canada

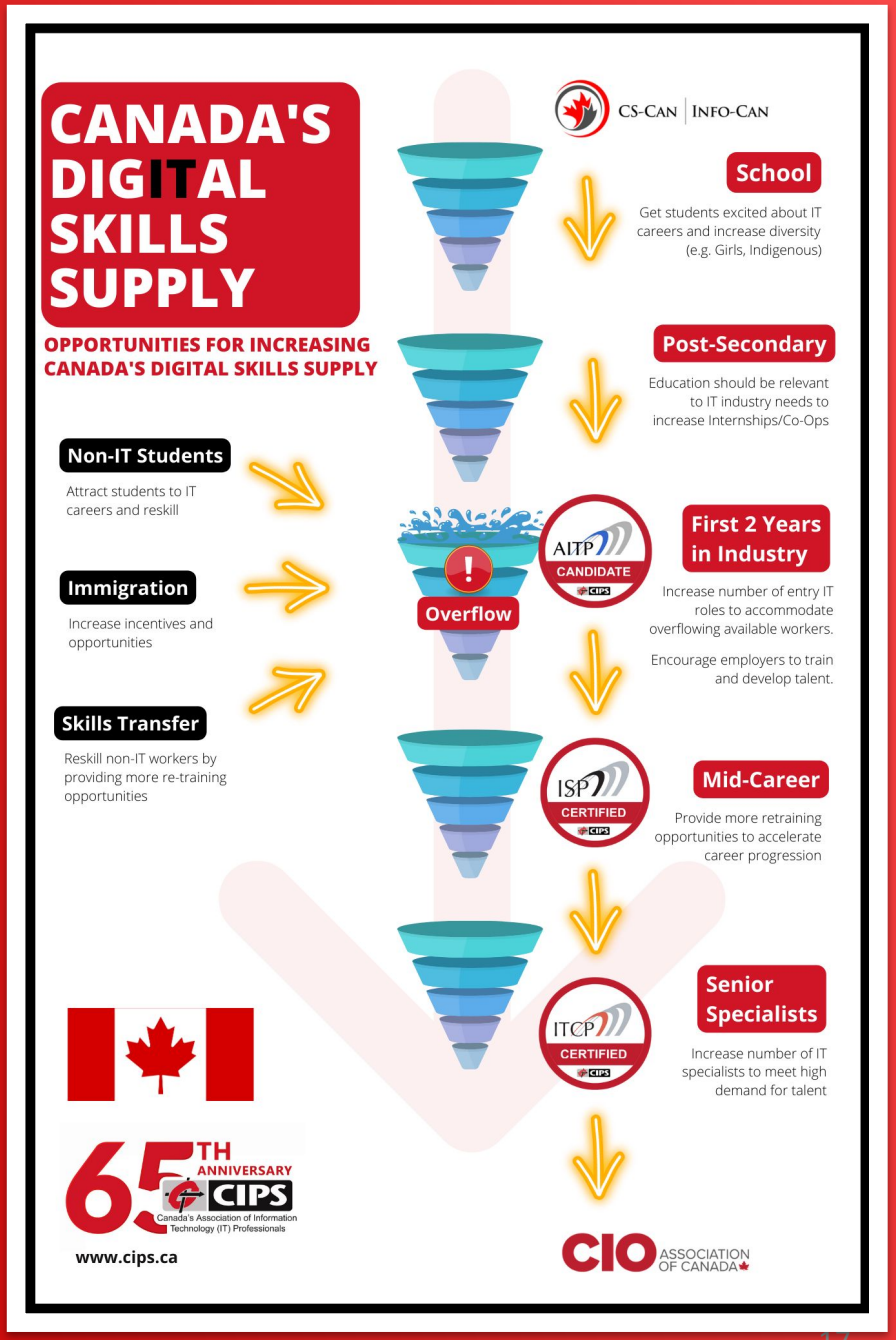
Volunteer your time and contribute to local events and develop new skills

Access event recordings

CIPS.CA/EVENTS

CANADA'S DIGITAL SKILLS SUPPLY SHORTAGE





FREE STUDENT MEMBERSHIP

Free Student Membership is available to those **registered full-time** in a recognized educational institution with **a minimum of two full semesters** or approximately 400 hours with significant computing content.

Join today and take charge of your future!

CURRENT STATE

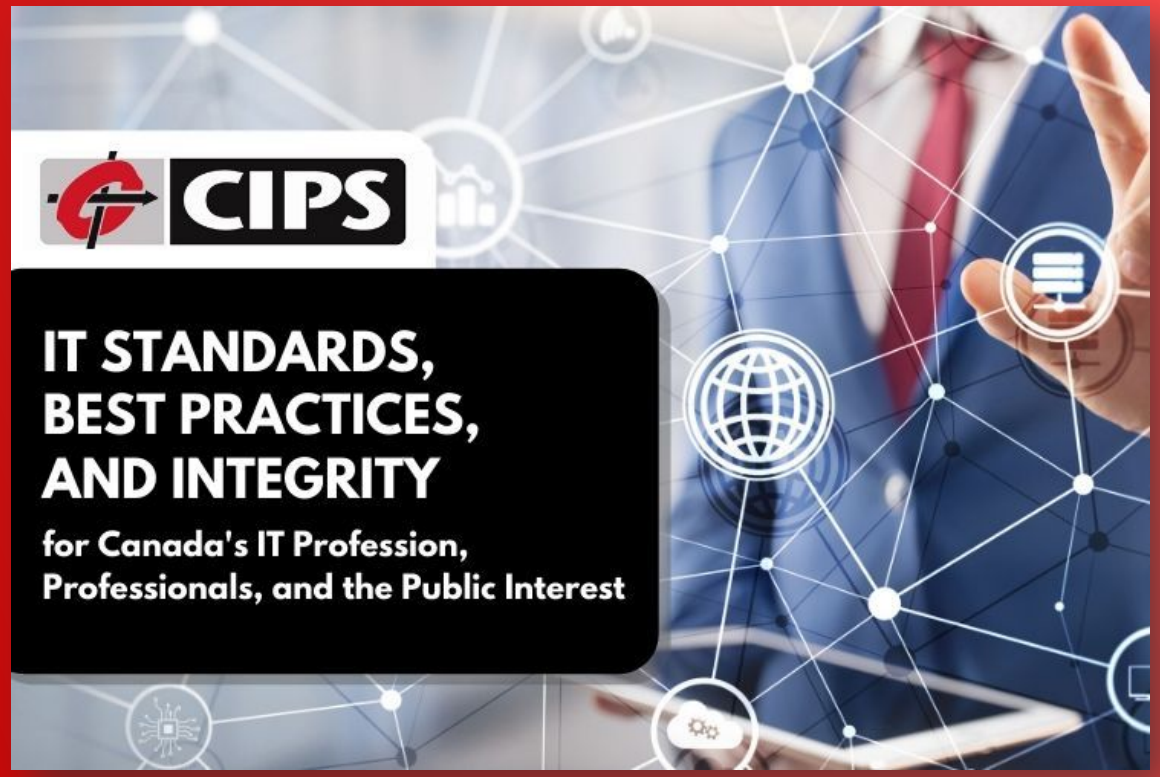
- Membership
- Covid impacts on Events
- Volunteers
- National office planning
- Provinces operate independently

VISION

Grow membership

Streamline operations

Work collectively versus independently



NEXT STEPS

Kick off National Committees

- Finance Committee
- Brand and Awareness Committee
- Program Committee
- Membership Committee

Operational Review

- Explore potential benefits of Centralized Shared Services

VOLUNTEER TODAY

Join your local Board

- Finance Committee
- Brand and Awareness Committee
- Program Committee
- Membership Committee

Be a mentor/mentee

Help shape the future of CIPS and the IT Profession!

Questions?

info@cips.ca

65TH ANNIVERSARY

CIPS

Canada's Association of Information Technology (IT) Professionals

www.cips.ca

info@cips.ca