# IITPSA NPC
Institute of Information Technology
Professionals South Africa

# ANNUAL
# REPORT

www.iitpsa.org.za

## 2020 | 21

**IITPSA**
Institute of Information Technology Professionals
South Africa

# CONTENTS

# 1. ABOUT IITPSA

## 1.1 BACKGROUND

IITPSA has a long-standing reputation as a professional body in the ICT sector and currently has a little over **9 000** members. Our main objective is to promote the ICT professional and the profession by representing our members and positively impacting the ICT industry.

This IITPSA annual report covers the financial year 1st March 2020 to 28th February 2021 and aims to keep our stakeholders informed about the highlights of the past financial year, our structure and governance, the activities of the Institute and its financial position.

## 1.2 LEGAL STATUS

The Institute (IITPSA) was originally registered as The Computer Society of South Africa (CSSA) in terms of the Companies Act No. 46 of 1926 as amended and today remains incorporated as a Non-Profit Company (IITPSA NPC) in terms of the Companies Act No. 71 of 2008 as amended.

Representing South Africa's **ICT professionals**.

IITPSA

Institute of Information Technology Professionals
South Africa

PROFESSIONAL CHIEF INFORMATION OFFICER
PMIITPSA
Pr.CIO
IITPSA

## 1.3 MANDATE

The Institute is established to represent, promote and elevate the arts, science and general knowledge of **Information and Communications Technology (ICT)** in **South Africa**, and, in particular, to advance and represent the interests, development and professionalism of all those employed in the ICT industry. In support of these objectives, the Institute undertakes the following specific **activities:**

- Gather information and informed opinions pertaining to the ICT industry from members and other authoritative sources, and disseminate such information and facilitate the exchange of views within the Institute to members, the public and other selected audiences by electronic means, journals, publications, lectures, seminars, conferences and any other appropriate channels;
- Provide an effective voice for industry practitioners to inform, advise and lobby Government and other bodies on ICT policy;
- Set standards and provide well-documented paths to enable practitioners within the industry to develop their skills and further their careers, and to obtain professional recognition;
- Collect, document and assess information about qualifications, certifications, and other sources of learning pertaining to the various fields of activity within the ICT industry, and to make this information available both to members and to others;
- Certify qualifications, certifications, courses, training schemes and events as part of the Institute's assessment criteria for the acceptance of members and the administration of Continuing Professional Development (CPD);
- Identify, develop and maintain relationships with other South African and international bodies and entities that have a common or synergistic purpose, objectives, interests and/or influence over the activities of our members or others in the ICT Industry;
- Seek membership and/or representation by and for the Institute within the structures of local and international bodies and entities where this is beneficial to the Institute and its members;
- Provide non-judicial arbitration in disputes pertaining to the ICT industry;
- Engage in community development that enhances the standards and levels of ICT for the greater good of the South African people; and
- Do all such other lawful things as are incidental or conducive to the attainment of the above objectives.

> **The Institute of Information Technology Professionals South Africa (IITPSA) aims to advance and represent the interests,** development and professionalism of all those employed in the ICT industry.

# 1.4 VISION, MISSION AND STRATEGIC OBJECTIVES

## VISION

"To be the best at building and sustaining a professional ICT Community"

## MISSION

"Leading ICT professionalism and ethical digital transformation"

The IITPSA Board of Directors held a half-day strategic planning session on 27 February 2021 and confirmed the ongoing strategic objectives of the Institute as those listed below. The Mission of the Institute was reworked and refined as shown in the image above.

## STRATEGIC OBJECTIVES

- Increase Career Development opportunities for our members
- Demonstrate Thought Leadership
- Develop and improve Stakeholder Relationships and engagement

# 1.5 STAKEHOLDER RELATIONSHIPS

As a SAQA-recognised and IFIP IP3 accredited professional body for ICT practitioners, IITPSA is both involved and active in the wider ICT community in South Africa and understands the value of appropriate professional relationships with other organisations, including those in the public, private and non-profit sectors of the economy where numerous formal and informal relationships exist.

In the 'other professional body' arena, IITPSA has relationships with ISACA South Africa Chapter, ISC² Gauteng Chapter, SAIEE and the BRM Institute.

IITPSA is a member of the SA Independent Professional Bodies Forum, the International Federation for Information Processing (IFIP), the IFIP International Professional Practice Partnership (IFIP IP3), the African ICT Alliance (AfICTA) and the Federation of Enterprise Architecture Professional Organisations (FEAPO).

The Institute has Board level representation on the CIO Council of South Africa, AfiCTA and IFIP IP3. IITPSA is also represented on the international Skills Framework for the Information Age (SFIA) Council.

IITPSA currently has signed memoranda of understanding with BPESA, Datasec, Coder/LevelUP and GIBS.

# 1.6 KEY ACTIVITIES

The IITPSA is engaged in numerous member-focused activities, including:

- ➤ Career and Skills Development
- ➤ Continuing Professional Development
- ➤ Skills Assessment
- ➤ Thought Leadership
- ➤ Women in IT
- ➤ Bursary awards
- ➤ Scholarships
- ➤ Professional Designations
- ➤ Digital Badging and Credentials
- ➤ Olympiads and Competitions
- ➤ Annual IITPSA President's Awards, recognising excellence in the profession and industry
- ➤ Chapter and Special Interest Group (SIG) events
- ➤ IFIP and IP3 membership and organisation
- ➤ Africa ICT Alliance (AfICTA) membership and Board participation
- ➤ SFIA Council representation and the ongoing development of the skills framework.

# 2. CHAIRPERSON'S FOREWORD

In our previous annual report, we reflected on a challenging year characterised by change. However, nobody could have foreseen that the year to follow would drive unprecedented change – at scale.

Thanks to an enthusiastic and professional team, the IITPSA was able to adapt and change to the new circumstances fairly quickly. Our staff worked remotely for most of 2020, delivering the same level of service and support we offered in the 'old normal'.

We moved our SIG meetings and regional AGMs online, and quickly mastered new digital approaches to hosting meetings. Our online events proved so successful that we launched the new Tabling Tech series, which allows us to network and engage with members and ICT professionals in South Africa and across our borders for the first time. Although we launched webinars as a response to adversity, our knowledge sharing events have become more frequent and sometimes better attended than our popular real-life events before the pandemic. The opportunity to easily join a meeting to learn and network across borders is adding yet more value to IITPSA membership.

I would like to thank IITPSA's CEO and Board for their diligence, professionalism and innovation during a year that was certainly a challenging one. Thanks to their consistent excellence in the face of adversity, the IITPSA managed to weather the worst of the pandemic storm whilst continuing to engage members and interact with the broader ICT community.

**Thabo Mashegoane,**
**MBA, B Comm (Hons), MIITPSA,**
*President and Chair of the Board*

> ## Thanks to an enthusiastic and professional team,
>
> the IITPSA was able to adapt and change to the new circumstances fairly quickly. Our staff worked remotely for most of 2020, delivering the same level of service and support we offered in the 'old normal'.

**IITPSA NPC**
Unit 4 Probuild Commercial Park
347 James Crescent
Halfway House
Midrand
1685

# 3. CEO'S MESSAGE

Due to external circumstances, 2020 became the year we as ICT professionals were forced to depend wholly on the technologies we build and maintain. 2020 was certainly the year we did IT online, and we did so with sterling results.

Key activities such as nominations for the IITPSA President's Awards, the Computer Olympiad events, participation in major industry conferences and our own meetings and Tabling Tech webinars moved smoothly online to ensure our activities continued within the bounds of restrictions of movement.

Our last in-person, live event for 2020, although nobody knew it at that stage, was the SIGAIR event in Johannesburg in March 2020, when maskless members enjoyed one last opportunity to network and made their first attempts at elbow bumping instead of handshakes. Only weeks later, the country was in the highest level of lockdown and our first online event was held – a Blockchain SIG meeting hosted by John Singh, head of the IITPSA Blockchain Special Interest Group (SIG) in KZN.

During the year, we increased the number of online events we hosted, and stepped up our public relations, media relations and social media engagement to ensure that our members continued to enjoy a sense of community and the opportunity to share knowledge. These measures have proved successful, and digital engagement will likely continue as an important element of our engagement model in future.

Despite the difficult circumstances brought about by the global pandemic, IITPSA successfully relocated to larger, more modern offices in James Crescent, Midrand. This move had been planned months earlier to help accommodate the growing IITPSA staff complement and the strategic objectives and activities set by the IITPSA Board.

We look forward to opportunities to meet all our members in person again, and thank you all for displaying professionalism and excellence in adversity during a trying year.

**Tony Parry,**
**MBA, BA (Hons), PMIITPSA, F.Inst.D.**
*Chief Executive Officer*

❝

## Despite the difficult circumstances brought about by the global pandemic,

IITPSA successfully relocated to larger, more modern offices in James Crescent, Midrand. This move had been planned months earlier to help accommodate the growing IITPSA staff complement and the strategic objectives and activities set by the IITPSA Board.

❞

**IITPSA NPC**
Unit 4 Probuild Commercial Park
347 James Crescent
Halfway House
Midrand
1685

# 4. HIGHLIGHTS FROM 2020/21

The impact of the global COVID-19 pandemic severely limited our face to face interactions and member prospecting. All face to face exhibitions, conferences and workshops were cancelled from the first quarter, but we were able to quickly adjust to virtual operations and operating status. The focus also directed primarily to member retention, rather than new member recruitment. IITPSA undertook an aggressive visibility campaign via a perpetual online presence, including participation in numerous virtual industry events and exhibitions.

## 4.1. VIRTUAL EVENTS

IITPSA ramped up its events offering to members and the broader ICT community during the year under review, with the vast majority being hosted virtually, due to the global COVID-19 pandemic and local lockdown restrictions. Virtual events and media coverage analysis has been collated by our outsourced Public Relations and Marketing associates, ITP Communications.

### Industry Event Partnerships & Virtual Events

In 2020 the IITPSA took part in the following industry events & virtual events as a partner:

- **Skills Development Summit** on the 4th and 5th March, where IITPSA's Adrian Schofield was a keynote speaker.
- **Women in Tech Conference** on the 18th of March in Cape Town.
- **DevConf Conference** on the 31st of March in Cape Town and 2nd April in Johannesburg. (This event was eventually cancelled as a live event and changed to a virtual event due to the first lockdown)
- **ITWeb Security Summit** 25th - 28th August (virtual event)
- **Skills Summit** 28th September (virtual event)
- **IDC CIO Summit** 22nd October (virtual event)
- **AfricaCom** 10th - 12th November (virtual event). **Sandra La Bella**, Visionary CIO Award winner in 2019, represented IITPSA on the Africa Stage and presented on the topic: CIOs the catalysts of change for a digital world.
- **IDC South Africa Government Congress** 25 November 2020 (virtual event)
- IITPSA was promoted in all digital marketing materials as a partner to these events and members were offered a 20% discount on the cost of attendance.
- The **2020 IITPSA President's Awards** event, usually held in November, was delayed until the 15th April 2021 and was held as a fully virtual event for the very first time in the history of the Institute. An abundance of extremely positive and complimentary feedback was received in respect of the hosting of these awards virtually.

## 4.2. SOCIAL MEDIA AND ONLINE COVERAGE:

### 4.2.1 GOOGLE

More and more often now, applicants and members calling at the IITPSA National Office have been rating the Institute on Google Business. IITPSA ended the 2020/21 year with a star rating of **4.3**.

## WHAT CUSTOMERS ARE SAYING ABOUT YOU

Congrats, **The Institute of IT Professionals South Africa IITPSA** has a **4.3** star rating on Google

★ ★ ★ ★ ⯪

### 4.2.2 LINKEDIN

IITPSA currently has two LinkedIn platforms. One is an open group, and the second is a closed group for members only. The open group has **1036** members. The closed group for members only has **1382** members.

A much more focused approach to increase members of the open group was implemented in 2020, with an active attempt to invite members from the closed group to the open platform. At present, we continue to post across both platforms.

### 4.2.3 TWITTER

IITPSA's Twitter page has grown to **1848** followers. The platform grew in Tweet activity to keep the Institute's presence top of mind. As always, IITPSA news and events achieved the most engagement.

### 4.2.4 FACEBOOK

ITPSA's Facebook page now has a total of **1272** followers. The page was updated daily, Monday-Friday, throughout the 2020 financial year. Posts included links to how to register, and general ICT industry news.

### 4.2.5 INSTAGRAM

The Instagram platform was launched in 2020. As a primarily visually focused platform, IITPSA is utilising brand designed templates with content focused on educating professionals on the role of the Institute, it's levels of membership, news about IITPSA initiatives, and the promotion of upcoming events.

The Instagram account currently has **100** followers, with boosted posts achieving up to **180** likes per post in November and early December. In 2021 IITPSA has a strategic focus on growing the Instagram community.

## 4.3 NEW MEMBER BENEFITS

- **Training Partners and Continuing Professional Development**

  As an added benefit to IITPSA members, and in support of the IITPSA strategic objective of member career development, the IITPSA business development department is actively engaging with prospective training providers to fulfill members' continuing professional development (CPD) needs.

  In the first quarter IITPSA signed an MOU with Data Secure for cyber security training, and the Gordon Institute of Business Sciences (GIBS) for business related courses. In the third quarter of 2020, Regenesys Business School was approved as a CPD accredited training provider, and, in the fourth quarter, Deviare was similarly approved.

  These CPD accreditations need to be renewed annually and may, in time, prove to be a welcome annuity revenue stream for IITPSA.

- An MOU with Brainstorm was signed for Brainstorm discounts to IITPSA members.

- A collaboration with Jooble.org, an online ICT career portal providing access to ICT job opportunities, was finalised and signed.

## 4.4. COMPUTER OLYMPIADS

Thanks to the concerted effort of all involved, all of the Olympiad competitions took place virtually during 2020 and were all successful. The trophies for the Computer Applications Olympiad, won by Justine Barwise of Hoerskool Waterkloof in Pretoria, and the Computer Programming Olympiad, won, for the second time in succession, by Andi Qu of St. John's College in Johannesburg, were presented, in-person, by the IITPSA CEO, to the winners at their schools in November 2020.

Previously run externally (by the SA Computer Olympiads Trust) as projects of the Institute, IITPSA took over the actual operations of the Computer Olympiads from 01 November 2020, and we welcomed Chanelle Booysen, the Senior Olympiads Administrator, to our team.

## 4.5. IFIP IP3 REACCREDITATION

In July 2015, IITPSA's Professional Member (PMIITPSA®) designation programme was internationally accredited by the International Professional Practice Partnership (IP3) of the International Federation for Information Processing (IFIP) for a five year period.
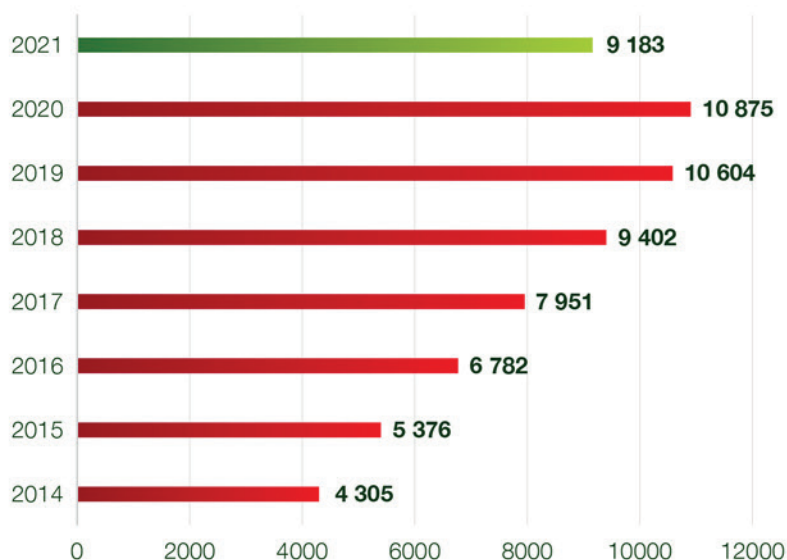
After a fully virtual accreditation / reaccreditation submission and assessment during the latter part of 2020, the IITPSA team was delighted to be advised, in very early January 2021, that the PMIITPSA® designation programme had been reaccredited, and the new Professional CIO (Pr.CIO®) designation programme had been accredited for the first time. Both accreditations are valid for the next five year period. The Pr.CIO® is the first SFIA level 7 scheme to be approved by IP3.

The IP3 assessors congratulated IITPSA's team on the quality of their application and the underlying policies and procedures.

## 4.6 MEMBERSHIP

Prior to the 2020/21 Financial Year, IITPSA total membership had been growing in a fairly linear fashion with a peak of **10 875** members at 28 Feb 2020. However, the impact of the global pandemic in calendar year 2020 and 2021 has had a significant impact on the IITPSA membership numbers, with overall membership sitting at **9 183** members on 28 Feb 2021.

### TOTAL MEMBERSHIP

| Year | Members |
|------|---------|
| 2021 | 9 183 |
| 2020 | 10 875 |
| 2019 | 10 604 |
| 2018 | 9 402 |
| 2017 | 7 951 |
| 2016 | 6 782 |
| 2015 | 5 376 |
| 2014 | 4 305 |

The IP3 assessors congratulated IITPSA's team on the quality of their application and the underlying policies and procedures.

16

## AGE



- 56+ **4%**
- 41 - 55 **18%**
- 26 - 40 **72%**
- <26 **6%**
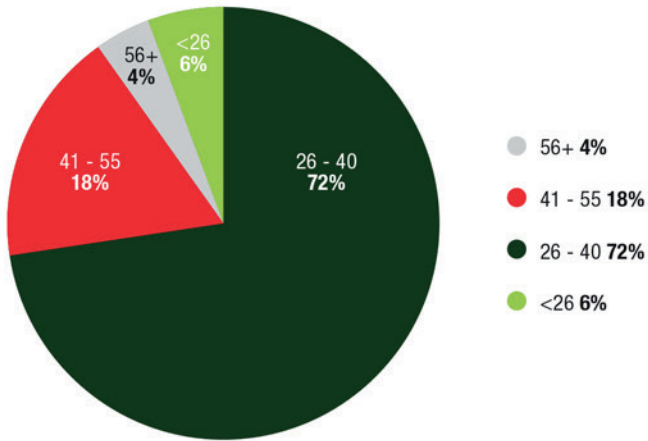
**72%** of members are in the **highly active 26 - 40** age group, in the prime years of their professional development. **6%** are **starting out**, or in the early stages of their ICT careers, and **22%** are seen to be **senior practitioners.**

## GENDER



- MALE **83%**
- FEMALE **17%**
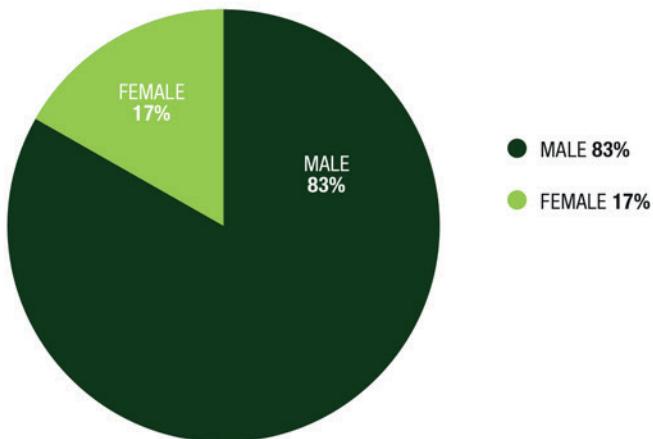
Only **17%** of our members are **female**, which remains unchanged from the previous year. The fact that the large majority of our immigrant members are male, contributes to this high proportion of male representation in the Institute.

## MEMBERSHIP GRADES

STUDENT 5%
PROF MEMBER 1%
FELLOW 0.39%

ASSOCIATE 20%

MEMBER 62%

AFFILIATE 12%

- MEMBER 62%
- ASSOCIATE 20%
- AFFILIATE 12%
- STUDENT 5%
- PROF MEMBER 1%
- FELLOW 0.39%
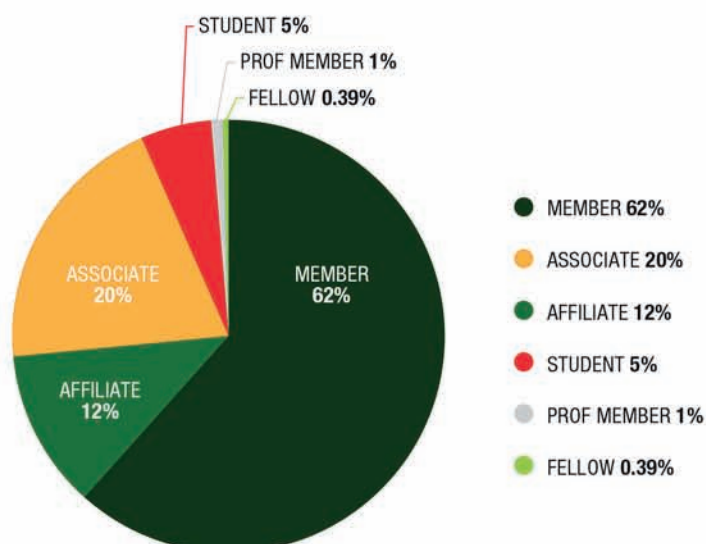
The **Membership grades analysis** has not changed much from the prior year. A little under two thirds of the membership body fall into the **MIITPSA, PMIITPSA** (including **Pr.CIO**) and **FIITPSA** grades. The remaining **38%**, at the **Student, Affiliate** and **Associate** grades, are working towards **qualifying** for those designations. We are continuing to actively promote the value of the Pr.CIO and PMIITPSA designations, both of which signify the **commitment** to **ethical behaviour** and **excellence** in the **profession**.
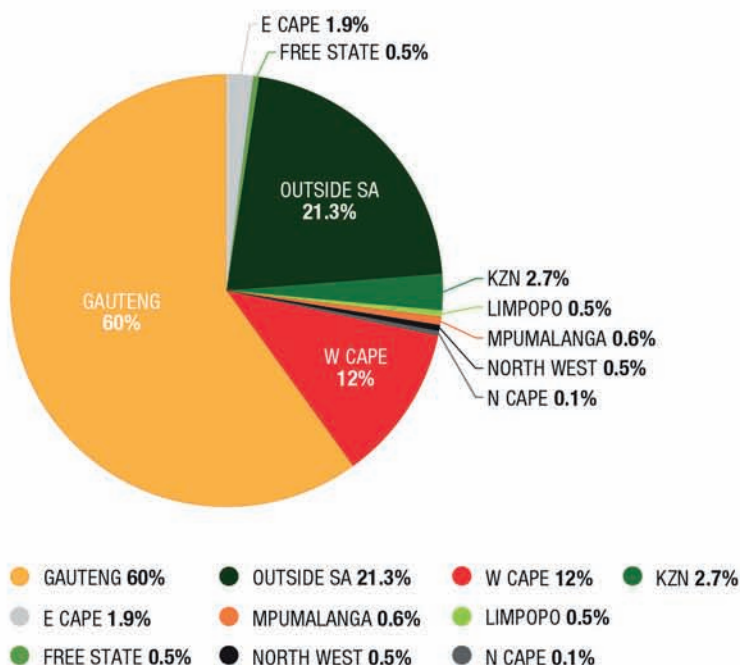
## MEMBERSHIP BY PROVINCE

E CAPE 1.9%
FREE STATE 0.5%

OUTSIDE SA 21.3%

GAUTENG 60%

KZN 2.7%
LIMPOPO 0.5%
MPUMALANGA 0.6%
NORTH WEST 0.5%
N CAPE 0.1%

W CAPE 12%

**60%** of members are resident in **Gauteng** (down 2%) and **12%** in the **Western Cape** (up 1%). The other **seven provinces together** account for only **7%** of the total membership base. Significantly, **21%** of members are resident **outside of South Africa** (1% up from the prior year).

- GAUTENG 60%
- OUTSIDE SA 21.3%
- W CAPE 12%
- KZN 2.7%
- E CAPE 1.9%
- MPUMALANGA 0.6%
- LIMPOPO 0.5%
- FREE STATE 0.5%
- NORTH WEST 0.5%
- N CAPE 0.1%

## RACE (SA)



- WHITE **30%**
- HDI **70%**
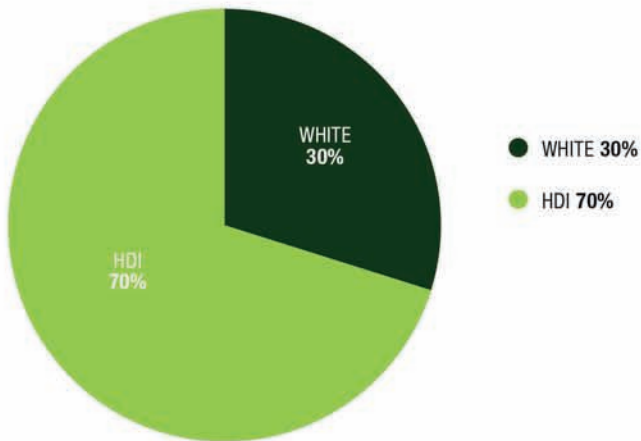
The following two graphs illustrate the racial profile of our South African members, and the geographic origins of our non-South African members.

It is pleasing to note the continued **predominance** of **Black, Asian** and **Coloured South Africans (HDI)** within the IITPSA membership body. This proportion has remained **unchanged** from the prior year.

## ORIGIN (NON-SA)
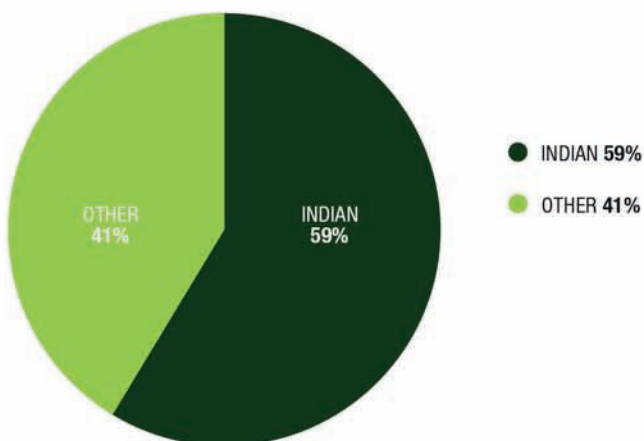


- INDIAN **59%**
- OTHER **41%**

Whilst the proportion of non-South African practitioners continues to be **dominated** by those coming from the **Indian** subcontinent, at **59%**, it is **1% down** on the prior year.

## STATUS



- OUTSTANDING **64%**
- PAID-UP **36%**
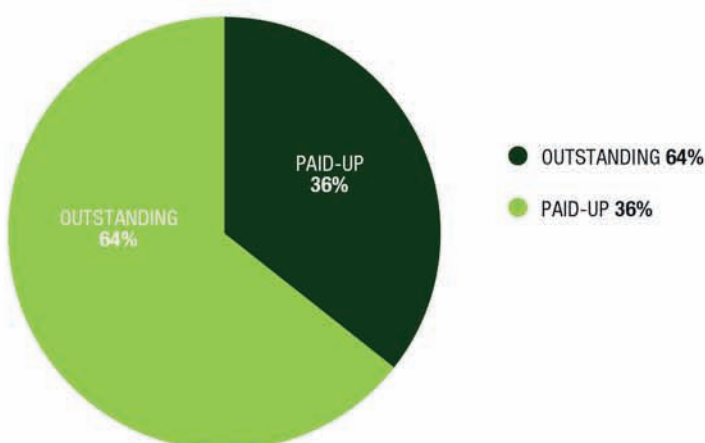
Finally, we note the continued **decline** in the proportion of our members who are in **'good standing'** (i.e. paying their membership subscriptions on time). This is indicative of the extremely **difficult social** and **economic climate** that prevailed during the **2020/21** financial year.

# 5. STRUCTURE AND GOVERNANCE

## 5.1 BOARD OF DIRECTORS

### 5.1.1 BOARD MEETINGS ATTENDANCE RECORD

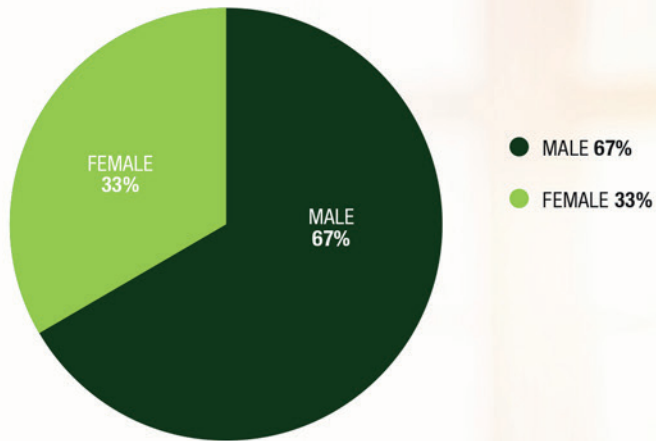| Name | Type | Position | IITPSA Board Meetings 01 Mar 2020 to 28 Feb 2021 | |
|---|---|---|---|---|
| | | | Quarterly Board Meetings | Special Board Meetings |
| Thabo Mashegaone | NED | President / Board Chairperson | 4/4 | 9/10 |
| Admire Gwanzura | NED | Vice-President / Chair Remuneration | 2/4 | 5/10 |
| Ulandi Exner | NED | Immediate Past President | 4/4 | 8/10 |
| Karel Matthee | NED | Treasurer / Chair Audit & Risk | 4/4 | 9/10 |
| Moira de Roche | NED | Chair Social & Ethics | 4/4 | 10/10 |
| Kudzayi Chipidza (appointed 18 Aug 2020) | NED | | 3/3 | 1/3 |
| Senele Goba (appointed 18 Aug 2020) | NED | | 3/3 | 3/3 |
| Llewellyn Kearns (appointed 18 Aug 2020) | NED | | 2/3 | 2/3 |
| Rimmon Kisten | NED | | 3/4 | 2/10 |
| Pearl Pasi | NED | Chair Members Council | 2/4 | 6/10 |
| Tony Parry | ED | Chief Executive Officer | 4/4 | 10/10 |
| John Singh  (appointed 18 Aug 2020) | NED | | 3/3 | 2/3 |
| Carolynn Chalmers (resigned 18 Aug 2020) | NED | | 0/1 | 6/7 |

The members of the IITPSA Board participated in four scheduled, quarterly meetings, and ten special meetings (working sessions) during which new and revised Board and Board Committee Terms of Reference and various policies were reviewed and approved. The Table above indicates the participation by each of the Board members.

## 5.1.2 BOARD COMPOSITION AS AT 28 FEB 2021

### BOARD COMPOSITION BY GENDER

FEMALE
33%

MALE
67%

● MALE **67%**
● FEMALE **33%**

### BOARD COMPOSITION BY AGE

>60
**17%**

30 - 39
**25%**

50 - 59
**17%**

40 - 49
**42%**

● >60 **17%**
● 50 - 59 **17%**
● 40 - 49 **42%**
● 30 - 39 **25%**
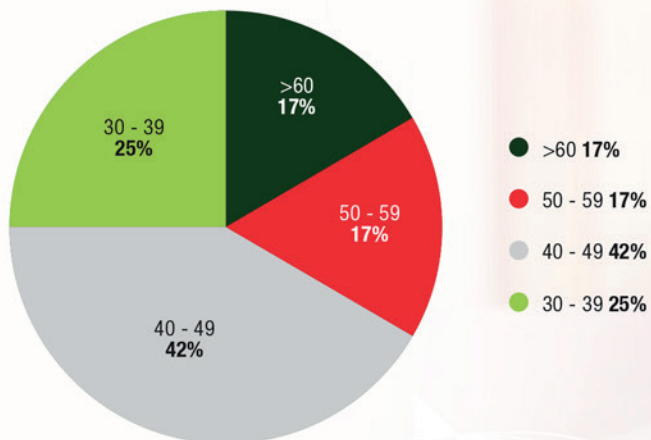
## 5.2 BOARD COMMITTEES

### 5.2.1 AUDIT AND RISK COMMITTEE

The IITPSA audit and risk committee is a board committee. The committee functions within documented terms of reference and complies with relevant legislation, regulation and governance codes. This report of the audit and risk committee is presented to members in compliance with the requirements of the Companies Act and the revised King Code of Governance Principles ("King IV").

### 5.2.1.1 ROLE OF THE COMMITTEE

The audit and risk committee ("the committee") has an independent role with accountability to both the board and to members. The committee's responsibilities include the statutory duties prescribed by the Companies Act, activities recommended by King IV as well as additional responsibilities assigned by the board.

The responsibilities of the committee are as follows:

**Annual reporting**

- Review the annual financial statements;
- Review and approve the appropriateness of accounting policies, disclosure policies and the effectiveness of internal financial controls;
- Perform an oversight role on the Institute's annual reporting and consider factors and risks that could impact on the integrity of the annual report;
- Review sustainability disclosure in the annual report and ensure it does not conflict with financial information;
- Consider external assurance of material sustainability issues; and
- Recommend the annual report for approval by the board.

**Combined assurance**

- Ensure the combined assurance model addresses all significant risks facing the Institute; and
- Monitor the relationship between external and internal assurance providers and the Institute.

## Finance function

- Consider the expertise and experience of the finance manager; and
- Consider the expertise, experience and resources of the Institute's finance function.

## Risk management

- Make recommendations to the board on levels of risk tolerance and risk appetite;
- Ensure risk management is integrated into business operations;
- Ensure risk management assessments are conducted on a continuous basis;
- Ensure frameworks and methodologies are implemented to increase the possibility of anticipating unpredictable risks;
- Ensure that management considers and implements appropriate risk responses;
- Express the committee's opinion in the effectiveness of the system and process of risk management; and
- Ensure risk management reporting in the annual report is comprehensive and relevant.

## External audit

- Review the quality and effectiveness of the external audit process; and
- Ensure a process is in place for the committee to be informed of any reportable irregularities identified by the external auditor.

## 5.2.1.2 COMPOSITION OF THE COMMITTEE

The committee comprised four independent non-executive directors during the period. These directors include suitably skilled directors having recent and relevant financial and risk management experience. The committee is elected by the board after the annual general meeting.

The following directors served on the committee during the period under review:

| IITPSA AUDIT AND RISK COMMITTEE (ARC) | | | Meeting Attendance 01 Mar 2020 to 28 Feb 2021 | |
|---|---|---|---|---|
| Independent non-executive director | Qualifications | Term | ARC Quarterly Meetings | ARC Special Meetings |
| Mr Karel Matthee (Chairperson) | BSc (Hons), BCom | 01/03/2020 – 28/02/2021 | 4/4 | 1/1 |
| Mr Rimmon Kisten | BSc (IT), MBA, A+, N+, MCSE, MCSD, CNE, CNA, MCP | 01/03/2020 – 28/02/2021 | 2/4 | 1/1 |
| Ms Ulandi Exner | BCom, CISA, CISSP, CGEIT, Cert.Dir | 01/03/2020 - 18/08/2020 | 2/2 | 1/1 |
| Mr John Singh | BSc (CS), Dip. PM | 19/08/2020 – 28/02/2021 | 2/2 | - |
| Mr Llewelyn Kearns | BCom (Informatics), N6 Electronic Eng. | 19/08/2020 – 28/02/2021 | 2/2 | - |

The chief executive officer, head of operations and finance manager attend meetings at the invitation of the committee.

## 5.2.1.3 CONTROLS AND AUDIT

## INTERNAL CONTROL

Systems of internal control are designed to manage, rather than eliminate, the risk of failure to achieve business objectives and to provide reasonable, but not absolute, assurance against misstatement or loss.

While the board is responsible for the internal control systems and for reviewing their effectiveness, responsibility for their actual implementation and maintenance rests with executive management. The systems of internal control are based on established organisational structures, together with written policies and procedures, and provide for suitably qualified employees, segregation of duties, clearly defined lines of authority and accountability. They also include cost and budgeting controls, and comprehensive management reporting.

## INTERNAL FINANCIAL CONTROLS

The committee has assessed information and explanations given by management on the results of the 2020/21 audit. Through this process no material matter has come to the attention of the audit and risk committee or the board that has caused the directors to believe that the company's system of internal controls and risk management is not effective and that the internal financial controls do not form a sound basis for the preparation of reliable financial statements.

## EXTERNAL AUDIT

The external auditor has unrestricted access to the Institute's records and management. The auditor furnishes a written report on significant findings arising from the annual audit.

The audit partner in charge of the audit is rotated off the audit after five years. In terms of this policy, the current audit partner is in the third year of tenure. The Institute has received confirmation from the external auditor that the partners and staff responsible for the audit comply with all legal and professional requirements with regard to rotation and independence. The committee is satisfied that the external auditor is independent of the company.

## 5.2.1.4 ACTIVITIES OF THE COMMITTEE

The committee met five times during the financial year and attendance at the meetings is detailed in the previous section. Members of the committee and the external auditor may request a non-scheduled meeting if they consider this necessary. The chairperson of the committee will determine if such a meeting should be convened.

Minutes of the meetings of the committee, except those recording private meetings with the external auditors, are circulated to all directors and supplemented by an update from the committee chairperson at each board meeting. Matters requiring action or improvement are identified and appropriate recommendations made to the board.

The chairperson of the committee attends the Annual General Meeting to answer any questions on the committee's activities.

The committee performed the following activities relating to the audit function during the year under review, with certain of these duties being required in terms of the Companies Act:

- reviewed the Institute's internal financial control and financial risk management systems; and
- reviewed and recommended to the board for approval of the annual report and annual financial statements.

## EVALUATION OF FINANCE MANAGER AND FINANCE FUNCTION

The committee is satisfied that the expertise and experience of the finance manager is appropriate to meet the responsibilities of the position. This is based on the qualifications, levels of experience, continuing professional education and the board's assessment of the financial knowledge of the finance manager.

The committee is also satisfied as to the appropriateness, expertise and adequacy of resources of the finance function and the experience of senior members of management responsible for the finance function.

## 5.2.1.5 APPROVAL OF THE AUDIT AND RISK COMMITTEE REPORT

The committee confirms that it has functioned in accordance with its terms of reference for the 2020/2021 financial year and that its report to members has been approved by the board.

By Chairperson of the Audit and Risk Committee: Karel Matthee
01 June 2021

## 5.2.2 FINANCE COMMITTEE

| | |
|---|---|
| **Finance Committee Chairperson:** | Mr. Karel Matthee |
| **Committee Members:** | Mr. Tony Parry<br>Ms. Neshrene Reddy |

## 5.2.3 MEMBERSHIP COMMITTEE

| | |
|---|---|
| **Membership Committee Chairperson:** | Mr. Chris Guy |
| **Committee members:** | Ms. Jane Buisson-Street<br>Ms. Carol Gibson (deceased)<br>Prof. Meera Joseph (added May 2021) |
| **Appeals Committee Members:** | Mr. Tony Parry<br>Mr. Adrian Schofield |

For many decades, the Institute's process for reviewing applications for membership and re-grading of members has relied on the skills and experience of the Membership Committee. The process was founded in the days of "hard copy", when three or four volunteers would sit around a table twice a week to review the documentation accompanying each application and append two signatures approving (or declining) the application. Any differences of opinion were addressed together and any queries resolved by discussion with the administration team.

The lockdown that started in March 2020 precipitated some changes, not least of which was moving to remote working. Documents were no longer printed, signatures became electronic and documents were shared across a secure network. Together with the opportunity being presented by the new Member Self Service (MSS) platform, this has led to a rethinking of the process of member assessment. Towards the end of the year under review, the Board tasked the management team with moving the activities of the Membership Committee into an operational format, utilising the facilities of the MSS platform to bring the process into the digital environment. These changes will require that there are amendments to the IITPSA MoI and Rules, which will be presented at the AGM in August 2021.

## CRITICAL SKILLS ASSESSMENTS - A SEVEN YEAR JOURNEY

On 3rd June 2014, the Department of Home Affairs introduced a new category of Visa - the Critical Skills Visa - for foreign nationals wishing to work in South Africa. This needed to be supported by a letter from the relevant SAQA-approved Professional Body attesting to the applicant's qualifications and post-qualification experience that qualified them to apply skills that were not readily available in South Africa and were deemed critical to the development of the economy.

This was not actually a totally new concept - prior to the Critical Skills Visa, there had been the Scarce Skills Visa for which the then Computer Society had been requested to provide supporting letters to suitably qualified applicants. Typically we had been asked to provide less than a dozen letters supporting applications for Scarce Skills Visas each year.

However, the new regulations accompanying the Critical Skills Visa were far more specific in defining and identifying critical skills that were in short supply in specific categories of economic activity. These include Agriculture, Architecture, Business, Economics and Management, Information Communication and Technology, Engineering, Health Professions, Life and Earth Sciences, Professionals, Trades, Business Process Outsourcing, and Academics and Researchers. Falling under these categories, there are 24 specific Critical Skills for which the IITPSA is competent to issue Certificates authenticating an applicant's qualifications and experience.

It was quickly decided that we would no longer issue letters of support to applicants, but rather a Certificate authenticating the applicant's qualifications and post-qualification experience. This was an important decision because it enabled us to provide the applicant with a single sheet of paper rather than a two or three page letter. Since the Department of Home Affairs' regulations required the foreign nationals to register with a relevant, SAQA recognised professional body, the Certificates could only be provided to applicants who were members of the Institute. Lastly applicants were requested to provide employer letters to substantiate their work experience claims. This is not a Regulatory Requirement, but interestingly, we have seen a Department of Home Affairs rejection of an application, on the grounds that the applicant had not provided an employer letter.

Defining the format of the Certificate, deciding what we needed from applicants, and publishing the necessary information on our website took just over a week, and our records show that we received our first application for a Critical Skills Certificate on the 27th June 2014 from a Belgian National, and the Certificate was delivered to him on the 10th July 2014. By the end of 2014, we had delivered more than **650** Critical Skills Certificates.

By the end of February 2021, almost seven years on, thousands of applications for Critical Skills Certificates had been received from the nationals of more than 90 countries. We do reject a relatively small percentage of the applications received, either because they do not meet our minimum criteria in respect of qualifications and post-qualification experience, or their skilled areas are not listed on the current critical skills list, or because there are issues with verifying the authenticity of the documentation they presented to us - but of the Certificates that we have processed, more than **99%** have been accepted by the Department of Home Affairs.

The IITPSA can be justifiably proud of having contributed to growing the pool of skills required in South Africa by facilitating the arrival of appropriately skilled professionals who will contribute to the country's future development.

Christopher Guy (FIITPSA) is Chairman of the IITPSA Membership Committee and is responsible for the Critical Skills Certificate programme.

## 5.2.4 REMUNERATION COMMITTEE

| | |
|---|---|
| **Remuneration Committee Chairperson:** | Mr. Admire Gwanzura |
| **Committee members:** | Mr. Thabo Mashegoane<br>Mr. Karel Matthee |

This remuneration annual report is presented in compliance with the Companies Act, No. 71 of 2008, as amended (Companies Act) and the recommendations of the King IV Report on Corporate Governance for South Africa.

### BACKGROUND STATEMENT

The IITPSA business environment changed dramatically during the course of the financial period due to the global outbreak of the COVID-19 pandemic. As a sub-committee of the Board, the committee is mandated by the Board to assist the Board in fulfilling its responsibilities in establishing and recommending formal, transparent policies and guiding remuneration principles for the institute by providing oversight on the remuneration practices and policies.

### REMUNERATION COMMITTEE COMPOSITION

The committee members for the financial period under review consisted of three independent non-executive directors, as shown in the table above. Attendance of executive management and other Board member/s was by invitation.

## ROLE AND RESPONSIBILITIES

Remco duties are governed by the IITPSA terms of reference as reviewed and approved by the board.

## MEETINGS OF THE REMUNERATION COMMITTEE

The committee met formally four times during the financial year under review. The CEO and two non-executive directors separately attended some meetings by special invitation during the period.

**Date: 02 November 2020:** Key discussion on the agenda was on the recruitment and onboarding of new staff in line with the incorporation of Computer Olympiads into IITPSA operations. The committee further provided guidance on other staff matters.

**Date: 12 November 2020:** The committee discussed the staff bonuses for the year and made its recommendation to the Board for approval.

**Date: 25 January 2021:** Reviewed and submitted the draft executive performance score-card for the Board's consideration.

**Date: 10 March 2021:** The committee discussed and approved proposed staff and management salary increases for 2021 and ratified some contracts. The committee conducted a self-assessment evaluation to measure its effectiveness and performance during the financial year under review. There were no concerns raised with the functioning of the committee. There will be another committee evaluation in 2021.

## 5.2.5 SOCIAL AND ETHICS COMMITTEE

| | |
|---|---|
| **Social and Ethics Committee Chairperson:** | Ms. Moira de Roche |
| **Committee members:** | Mr. Kudzayi Chipidza<br>Ms. Pearl Pasi<br>Ms. Senele Goba |

## THE SOCIAL & ETHICS COMMITTEE IS A BOARD COMMITTEE

The committee members appointed by the Board for 2020/21 are shown in the table above. The Committee's terms of reference were amended to allow us to include a person who is not a Non-Executive Director but is an IITPSA member. To this end, we called for volunteers. We were delighted to receive 12 nominations from the membership. The committee reviewed the applications and agreed to appoint Josine Overdevest as the 5th committee member.

The Social & Ethics committee forms an important part of the governance structure of IITPSA. We are not mandated by law to have this committee, but as IITPSA recognises its importance in the communities and environment where it operates and pursues its business goals, we feel that this committee serves a vital role. We are guided by Board approved Terms of Reference. IITPSA's Code of Conduct is used as the foundation for ethical decision making.

**The function and work of SEC includes:**
· Monitoring Activities
· Monitoring social & economic development activities
· Oversight responsibility

## 5.2.5.1 MONITORING ACTIVITIES:

a) Good corporate citizenship where we review amongst other things:
   i) Promotion of equality
   ii) Prevention of unfair discrimination
   iii) Reducing corruption in society
   iv) Our contribution to development of the communities in which our activities are conducted
b) Recording sponsorship, donations, and charitable giving
c) The environment, health, and public safety
d) Member and other stakeholder relationships, including the organisation's advertising, public relations, and compliance with consumer protection laws.
e) Labour and employment, such as our standing in terms of the International Labour Organisation Protocol on decent work and working conditions, as well as employee relationships and development of its employees

## 5.2.5.2 MONITOR SOCIAL & ECONOMIC DEVELOPMENT ACTIVITIES:

IITPSA's standing in terms of the goals and purposes of:
   i) United Nations Global Compact 10 Principles
   ii) OECD recommendations regarding corruption
   iii) The Employment Equity Act
   iv) The Broad-Based Black Economic Empowerment Act and its associated ICT Sector Code

### 5.2.5.3 OVERSIGHT – TYING INTO THE MONITORING ACTIVITIES, WE MAINTAIN OVERSIGHT OF

a) Corporate citizenship activities
b) Environment, health, and public safety
c) Stakeholder relationships
d) Labour and employment
e) Ethics governance
f) Procurement processes
g) Membership matters:
   i) The committee will review members complaints and compliments and provide guidance on what is working well and what needs to change.
   ii) Applicant grievances – prospective members who are not accepted follow a process where they can question why they are not acceptable as members. If this process has been exhausted, the applicant can escalate the matter to the SEC as a final resort – the SEC will review decisions taken throughout the process.

### 5.2.5.4 COMMITTEE WORK IN PROGRESS

**1. Meetings**

We hold four virtual meetings per annum. Senior management attends by invitation. Any conflicts are adjudicated by the IITPSA Board.

**2. Code of Ethics**

IFIP launched the IFIP Code of Ethics in September 2020. The SEC committee has agreed that IITPSA should adopt this code. However, we will ensure that all the principles embodied in the current IITPSA Code of Conduct are incorporated. Special meetings are in progress to finalise this.

**3. Member help for Ethics**

Once the IITPSA code is finalised, a member service will be created to help members who confront ethical issues. This will comprise a guide for ethical decision-making. If a member is still uncertain, they can fill in a form with the relevant information. This will be anonymised and sent to the SEC who will offer guidance based on the collective experience of the committee (not legal guidance).

By Social and Ethics Committee Chairperson: Ms. Moira de Roche

## 5.2.6 MEMBERS COUNCIL AND CHAPTER CHAIRPERSONS

| | |
|---|---|
| **Members Council Chairperson and Western Cape Chapter Chairperson** | Ms. Pearl Pasi |
| **Gauteng Chapter Chairperson** | Mr. Dickson Willie |
| **Eastern Cape Chapter Chairperson** | Dr. Lester Cowley / Prof. Lynn Futcher |
| **KZN Chapter Chairperson** | Mr. Marshal Masanga |
| **Women in IT Chapter Chairperson** | Ms. Ulandi Exner |

# 6. ACTIVITIES

## 6.1 IITPSA EVENTS HIGHLIGHTS 2020/2021

Hindsight is always 20/20, the saying goes. In 2020, things panned out very differently from what was expected. Here's a look back at what we thought would be the biggest news of the year, when asked for our forecasts in January 2020. *(Spoiler – it was the 4IR).*

The 4IR and in-country hyperscale data centres present significant opportunities for business growth and job creation in the 2020s, said **IITPSA President Thabo Mashegoane.**

**"**

**Africa must focus on skills development** and bringing down the cost of connectivity to capitalise on the 4IR opportunity.

**"**

The biggest opportunities for the SA ICT sector lie in 4IR technologies, said **Admire Gwanzura, IITPSA Vice-President** and **Non-Executive Director.** "Entrepreneurs are building businesses and creating jobs in fields like AI, IoT, Cloud and Blockchain. With proper training and a conducive regulatory environment, the 4IR presents huge economic opportunities," he said.

What is the outlook for the SA ICT sector in the 2020s. **Moira de Roche, IITPSA Non-Executive Director and IFIP IP3 Chair** said the sector was 'alive and well'. "We see a lot of innovators and entrepreneurs around 4IR technologies, and it is encouraging that some schools are now teaching subjects like robotics. Overall, the sector is in good shape," she said.

"The opportunities for South Africa's ICT sector outweigh most of its challenges," said **Pearl Pasi, IITPSA Non-Executive Director** and **Chairperson** of IITPSA's Western Cape Chapter. "What challenges face SA ICT at the dawn of the 4IR? Getting to grips with the plethora of new solutions now coming to market," she said.

**Kwazulu Natal Chapter Chair, Marshall Masanga**, said stakeholders should move fast to get ahead of the 4IR curve: "Now is the time to master technology instead of technology becoming our master. The 4IR is a reality and inevitably we cannot out-smart or out-efficient the machines but we can out-human them by upskilling, un-learning, re-learning and re-training to acquire new competencies. Evolve or die applies now at both individual, organisational and government levels."

## 2020: THE YEAR WE DID IT ONLINE

The arrival of the COVID-19 pandemic in South Africa coincided with the start of our 2020/2021 fiscal year, together with operational plans and a budget compiled in the optimistic mood characterised by the comments of our Board members, above.

Everything changed, but we had to adapt our operations and activities to continue meeting the needs of our members while accommodating the varying levels of restrictions imposed by the government's lockdown regulations. The following timeline highlights the activities that we did undertake, by month, starting with the most recent.

www.iitpsa.org.za

# IITPSA PRESIDENT'S AWARDS 2020



## APRIL 2021

While the 2020 IITPSA President's Awards event was somewhat delayed due to the pandemic, IITPSA hosted our first ever, virtual President's Awards. This successful event recognised ICT professionals who exhibited Excellence in Adversity during 2020. This event, although hosted in April 2021, is included here, as it relates to the 2020/21 financial year.





**Thabo Mashegoane**
President IITPSA

## FEBRUARY 2021

The final round of preparations for the International Olympiad in Informatics (IOI 2021) began in Cape Town, with the second of two workshops being hosted in February 2021. The programme sees South Africa's top participants in the 2020 Computing Olympiads – a project of the IITPSA – undergoing training camps at UCT to prepare them for IOI 2021

IITPSA announced that we would review our Code of Conduct to align with the new IFIP Global Code of Ethics and Professional Conduct for the ICT Sector.

A webinar featuring Sean Culey, Business transformation expert, futurist and author of 'Transition Point: From Steam to the Singularity', and the chair of the IITPSA special interest group on AI and Robotics, Johan Steyn, was one of the highlights of our events calendar in February.

The Eastern Cape Chapter held its 2020/21 AGM, with ten Chapter Committee members being elected.

**John Singh, chair** of the **IITPSA Blockchain** special interest group, and **IITPSA CEO, Tony Parry** hosted the IITPSA webinar on Decentralised Finance (DEFI) security simplified.



## JANUARY 2021

The Institute achieved the renewal of its **International Federation for Information Processing (IFIP) IP3** professional certification schemes' accreditation for a further five years.

South Africa's top seven participants in the 2020 Computing Olympiads – a project of the IITPSA – took part in their first training camp at UCT, to begin preparing for the International Olympiad in Informatics (IOI 2021). **Bronson Rudner, team trainer** and **chief judge** and coordinator of the Olympiad programme, reported that the participants were competing for the four available spots on the South African team for IOI 2021.

## DECEMBER 2020

The year wrapped up with an IITPSA SIGiST webinar on **"How Effective is your Test Automation Scripting"**, featuring Connie Makhura, an Automation Engineer leaning towards Scrum, DevOps and getting organisations to do things better. She was also a Code like a Girl instructor.

## NOVEMBER 2020

IITPSA's President, Thabo Mashegoane, was elected as Chairman of the Africa ICT Alliance (AfICTA), and IITPSA past president, Ulandi Exner, was elected AfICTA Vice-Chair for Southern Africa at the AfICTA AGM. We are proud to see our office bearers taking on these important roles to help further digital development on the continent. IITPSA has long regarded collaboration and cooperation across sectors and countries as being key to Africa's ICT progress, and we believe that Thabo and Ulandi's participation in a leading body such as AfICTA will help spur such collaboration.

The IITPSA KZN Chapter Blockchain SIG hosted a webinar entitled Bitcoin Mining Demystified

Proud moments as **IITPSA CEO, Tony Parry**, presented trophies and medals to SA's top Computer Olympiad participants.

**Andi Qu**, now (in 2020) a grade 12 learner at St John's College, won the Standard Bank Trophy and gold medal at the 2019 national Programming Olympiad when he was in Grade 11, and achieved a bronze medal in the 2020 International Olympiad for Informatics. He also went on to win the 2020 Gold medal in the Programming Olympiad.

www.iitpsa.org.za



**Justine Barwise**, a Grade 12 learner at Hoërskool Waterkloof, was the winner of the 2020 Computer Applications Olympiad IITPSA trophy and gold medal.



IITPSA partnered with **AfricaCom** and **AfricaTech**, anchor events of the new Africa Tech Festival, which attracted a stellar line-up of critical thinkers, analysts, futurists, keynote and inspirational speakers, including **Springbok Captain** and **2019 Rugby World Cup Winner, Siya Kolisi.**

**Sandra La Bella - Executive of Information Technology** - The Unlimited, and winner of the IITPSA President's Awards Visionary CIO Award 2019, presented on the Africa Tech Centre Stage on the topic: "Navigating accelerated digital disruption: CIOs as champions of enterprise transformation. CIOs have a crucial and multi-faceted role to play in helping their organisations transform for the digital age," she said.

The IITPSA Western Cape Chapter hosted a fun and interactive session sharing the thoughts of seasoned IT experts on their professional journeys, and their takes on success and making a difference. Attendees heard from **Terence Govender** - Director of IT Advisory at Mazars South Africa, **Absar Ahmed** - technical project manager solution delivery SAT at Quantum Leap Consulting, currently based at Old Mutual South Africa, and **George Chinowaita**, Senior Business Intelligence developer at DVT, currently contracted at Old Mutual South Africa.

## OCTOBER 2020

**John Singh**, a **Senior Systems Analyst** at the **Spar Group LTD** and an **IITPSA Non-Executive Director**, gave members a gentle introduction to Bitcoin cryptography math in a Blockchain SIG webinar.

The IITPSA SIGiST hosted a webinar entitled **"Why are we testing?"**
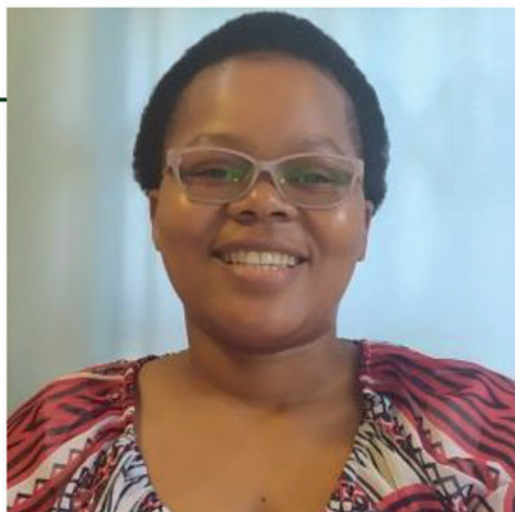


## IDC CIO Summit 2020
South Africa

The IITPSA was an official partner of the IDC South Africa CIO Summit, which explored a broad range of themes from business transformation and technology project management to artificial intelligence.

## The New Virtual Experience

Digital Event | October 22

idcciosummit.com/johannesburg

IDC | ANALYZE THE FUTURE

#IDCSACIO



**Senele Goba, Director of 4IR Innovations, founder of Ososayensi Education Advancement NPO** and a **non-executive director** of **IITPSA**, was awarded a place in the US State Department TechWomen programme for 2020.

www.iitpsa.org.za

## SEPTEMBER 2020

"The IITPSA KZN Chapter hosted a webinar focused on IT Framework convergence on the POPI journey – using POPI as an opportunity to implement multiple best practices. With just a year's grace to achieve compliance, organisations need to take proactive measures now to align with the guidelines of the Protection of Personal Information Act (POPIA)," **Sarisha Kisten, Managing Director** of legal advisory **Enyuka Consulting**, told the webinar.

The IITPSA SIGIST hosted a webinar that posed the question: **Is Enterprise DevOps overly Ambitious?**



E><cellence.in("Adversity");
IITPSA PRESIDENT'S AWARDS 2020

AWARD PARTNERS:
Gordon Institute of Business Science
University of Pretoria
iTWeb

We announced that the IITPSA President's Awards were going ahead. "The COVID-19 pandemic and lockdown have illustrated how crucial ICT is to the functioning of all organisations, but enabling business as usual in this challenging time has put heavy pressure on ICT professionals," said **IITPSA CEO Tony Parry.** "The 2020 awards were therefore themed **'Excellence in Adversity.'**"

43

Inspiring women in SA IT gave their advice for girls and women on getting ahead in the world of IT, during an IITPSA Western Cape Chapter special **Women's Month** webinar.

A webinar hosted by the IITPSA Eastern Cape Chapter featured **Professor Darelle van Greunen** of the **Nelson Mandela University Centre for Community Technologies (CCT)**, who said ICT has been the foundation and the "glue" behind the fight against the COVID-19 pandemic, and would continue to underpin emergency health response in future.

The lockdown proved to be an eye-opener in terms of how far South Africa must still go to overcome the digital divide, and bring millions of citizens into the digital economy, said speakers at a webinar endorsed by the IITPSA and hosted by Nedbank, EE Business Intelligence and the Joburg Centre for Software Engineering (JCSE) at Wits University.

IITPSA participated in the 2020 Skills Development Summit, held online on 28 September. This event focused on skills development and empowerment in a rapidly changing world.

## AUGUST 2020

The South African Information Regulator (SAIR), with limited resources to proactively police compliance with the new Protection of Personal Information Act (POPIA), will rely heavily on data subjects, media and organisations to report breaches. This is according to **Sizwe Snail ka Mtuze, managing director** of **Snail Attorneys @ Law** and commissioner at **SAIR**, who was speaking in an ITWeb Security Summit GRC, Privacy and Regulation track chaired by **Carolynn Chalmers, CEO** of **Prof Mervyn King's Good Governance Academy**, **director** of **Candor Governance**, and **former non-executive director** and current active member of the IITPSA. IITPSA was an official endorser of the ITWeb Security Summit 2020.
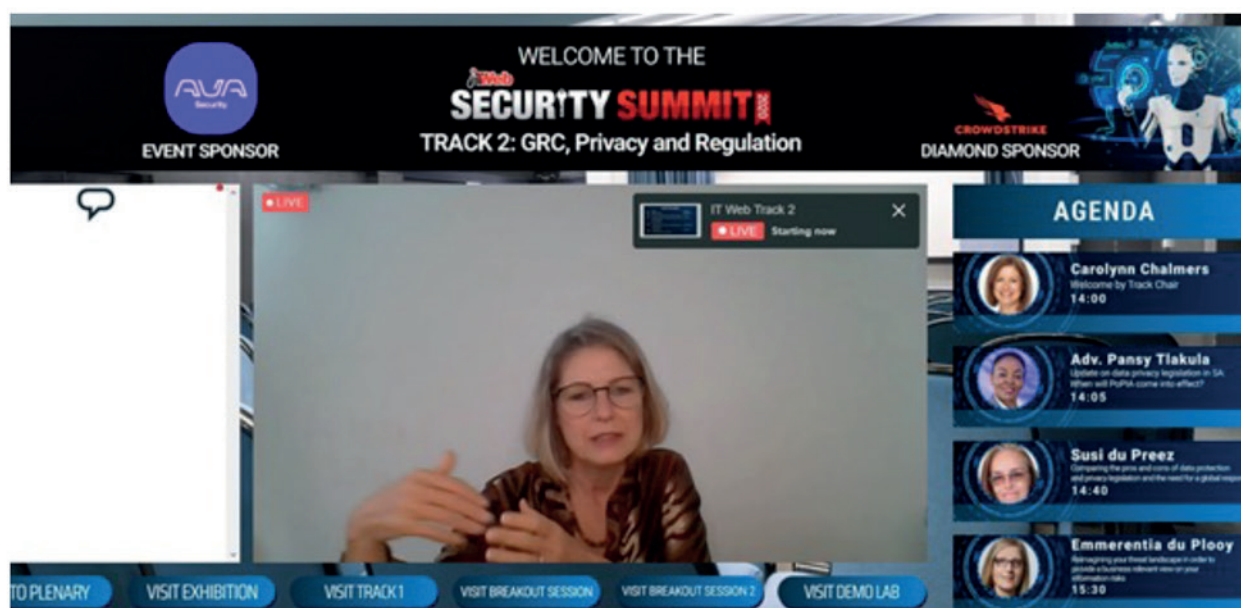


IITPSA held its first, online, **National Annual General Meeting (AGM)**, where **President Thabo Mashegoane** highlighted the Institute's focus on the development of young ICT professionals and the need to develop a stronger ICT skills pipeline for the country, as well as to extend digital access to all sectors of society. IITPSA members voted online to elect and/or re-elect the following non-executive Directors: Ulandi Exner, Admire Gwanzura, Rimmon Kisten, Karel Matthee, Kudzayi Chipidza, Senele Goba, Llewellyn Kearns and John Singh. The IITPSA's office bearers for the 2020/21 year remain unchanged, with Thabo Mashegoane as Board Chairperson and President, Admire Gwanzura as Vice President and Karel Matthee as Treasurer.

The complex ECDSA algorithm used to generate cryptographic signatures, along with the limited fault tolerance of quantum computers, means the codes protecting bitcoin are likely to remain completely secure for years to come, said John Singh, a senior systems analyst and head of the IITPSA Blockchain Special Interest Group (SIG) in Kwazulu Natal.

Speaking at an IITPSA Western Cape chapter webinar on how to become cyber resilient and more aware during Covid-19, **Terence Govender, Director** of **IT Advisory at Mazars South Africa**, said: "Our research has found that top targets for fraud and cyber-crime at the moment include home users, SMMEs and the health sector."

Home workers, SMMEs, and healthcare are most at risk of increased cyber-crime during the Covid-19 pandemic and lockdown, which had created new vulnerabilities that fraudsters and cyber criminals had been quick to exploit, Govender warned.

Technology practitioners need to use their knowledge and skills to overcome the pandemic disruption in education and enable remote learning, **Admire Gwanzura, Vice President** of the **IITPSA**, said during the same webinar.

**Moira de Roche, non-executive director** of the **IITPSA** and **Chair of IFIP (International Federation for Information Processing) IP3**, participated in the WSIS Forum 2020 High-Level Policy Session 10: Ethical Dimensions of Information and Knowledge Societies as the leader of the IFIP delegation. IP3 also held a Thematic Workshop entitled 'Living the standard – how can the Information and Knowledge Society live to an ethical and FAIR Standard and leave nobody behind?'

Halving has made Bitcoin mining a less lucrative proposition, **John Singh**, a **senior systems analyst** and **Chair of the IITPSA Blockchain Special Interest Group (SIG)** in KZN told a webinar on Bitcoin cryptography.

## JUNE 2020

Home-based workers are at increased risk of cyber-attack, but there are several measures they can take to reduce risk, **Bryan Baxter, IITPSA KZN Chapter Committee Member** told a webinar on cybersecurity and etiquette for remote work and meetings.

The IITPSA National Office officially moved to a new office location to accommodate our growth and changing business conditions. Our new address is **Unit 4, Probuild Commercial Park, 347 James Crescent, Midrand.**

## MAY 2020

**Robotic Process Automation (RPA) adoption is lagging in South Africa,** said **Johan Steyn, chair** of the **#IITPSA's AI and Robotics special interest group (SIG)** during the Institute's second Tabling Tech webinar. The IITPSA Tabling Tech webinars were introduced to extend ICT knowledge sharing to a broader audience.

The IITPSA Kwazulu Natal Chapter Committee was unanimously re-elected, and a sixth member added, during the Chapter's first-ever virtual AGM. Re-elected were Chairman Marshall Masanga, and members Tiger Chapanduka, Senele Goba, Bryan Baxter and John Singh. Vishen Govender was duly elected and became the sixth member of the Chapter Committee. Reporting back on the year's activities, Masanga said that the Chapter had hosted several events, with the CIO Breakfast and Women in IT events among the most successful. In the year to come, the chapter hoped to stage similar events again, as well as to increase its focus on supporting local schools through the donation of ICT equipment, and possibly also through ICT mentoring and teaching.

## APRIL 2020

Define a business case before rushing into an AI implementation, **Johan Steyn, IITPSA AI and Robotics Special Interest Group chair**, advised attendees at IITPSA's first Tabling Tech webinar on the topic **"Business Functions Ready for AI".**

The **DevConf 2020 conference for developers** found itself having to rapidly move from an 'in real life' (IRL) event in Johannesburg and Cape Town, to a combined virtual event on 2 April due to the COVID-19 pandemic. As an event partner, IITPSA had tickets to the event to give away to six lucky members. They reported that going virtual did not harm the popular developers' conference at all!
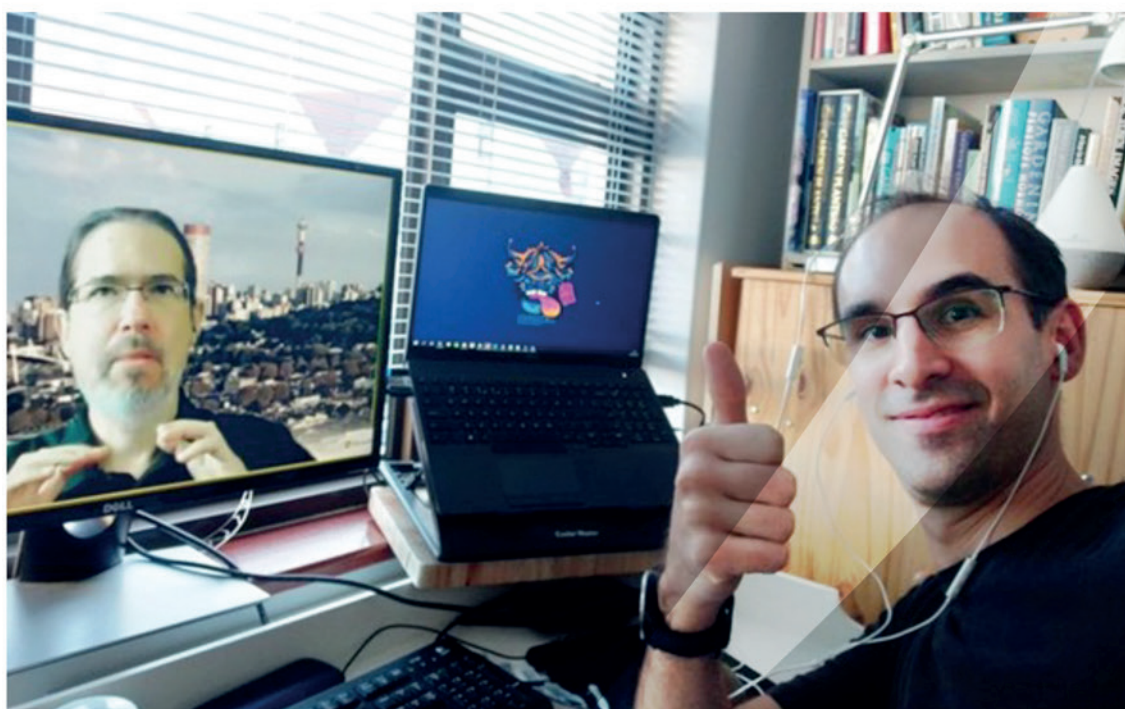
Cybercrime presents a bigger risk than ever during lockdown, but social engineering can be used to help mitigate risk, UCT specialists told an IITPSA Western Cape chapter briefing.



Blockchain and cryptocurrency skills are well worth developing, said **John Singh, head of the IITPSA Blockchain Special Interest Group (SIG)** in KZN at IITPSA's first SIG meeting to be delivered as a webinar amid COVID-19 restrictions.

## MARCH 2020

The last event for 2020, where people were able to physically attend, was the 11 March IOT SIGAIR event held at the Wanderers Club, Johannesburg.

IoT is advancing rapidly, thanks to a flood of low cost, low power devices in the market. AI-enabled command and control is the next milestone, participants heard.

IITPSA was a proud supporter of the TeensinAI hackathon at Redhill School.

## 6.2 IITPSA SCHOLARSHIP PROGRAMME

The IITPSA announced a new beneficiary of its SSir Online School scholarship, which has covered the costs of the online Java Programming Course for learners in Grades 10, 11 & 12 since 2017.

The latest beneficiary, 17-year-old **Dilan Vermaak**, was awarded a scholarship to complete his computing studies via SSir. He aims to go on to study a BSc Computer Science and hopes to work as a software engineer in future.

Based in Centurion, Dilan studies online, and excels at STEM subjects, including IT, having achieved **89%** for **mathematics** and **98% overall** for IT last year.

As a **disabled learner, Dilan** said his interest in IT emerged at an early age, when he began tinkering with computers, since he was unable to go outside and play like other children. He explains: "My passion for IT began at the age of two when my grandma bought me a toy laptop. I was utterly fascinated by it. Due to my interest in that laptop, my Mom bought me a real laptop for my 4th birthday. Unlike most other children, I cannot go outside and kick a ball; therefore I sought entertainment indoors which is where my interest and passion developed. Not only regarding entertainment, but, more importantly, the opportunity to learn and communicate through assistive technologies. And I believe many others in my position feel the same. I can't imagine what I would have done without technology and a way to stimulate my brain. The world would not have been what it is had it not been for technology. Plus, the life of disabled people would have been ten times harder."



> 66
>
> **The world would not have been what it is had it not been for technology.** Plus, the life of disabled people would have been ten times harder.
>
> 99
>
> **Dilan**

## Scholarships increasing female representation

IITPSA has been involved with the Programming Olympiad for several years. To date, very few girls make it to the finals, and no girl has ever been on the team that goes to the International Olympiad in Informatics (IOI).

Relatively few girls' schools offer IT as a subject. Most of those that do, only teach Delphi, as dictated by DBE. The Olympiad requires a programming language such as Java. To increase the number of girls who enter the ICT industry, which in turn will help address the skills shortage, IITPSA runs a scholarship programme:

- Girls who win medals in the Talent Search competition are invited to apply for the scholarship. This competition tests logical thinking and reasoning.
- IITPSA sponsors selected girls to study Java Programming through the SSir Online School, which aligns to the IEB examination. The scholarship covers tuition and books in Grades 10, 11 & 12.
- This is an additional subject and requires commitment from the learners to spend the extra time on the course. They must also get accustomed to learning online.
- We provide informal mentoring to the girls, but plan to make this more formal in future.

Of three learners who were enrolled in 2017, only one completed through to Matric. Her name is **Veda October**. Veda completed the first year of an IT Degree course at Pearson, earning 10 distinctions. IITPSA has provided a partial bursary for her second year's studies.

Two of the three learners who started their course in 2018 completed Matric in 2020. One has decided to take a gap year; the other, **Zuleigha Patel**, has commenced with a BSc Computer Science degree at UCT. Zuleigha was awarded a full bursary by IITPSA.

IITPSA has not awarded any scholarships to Grade 10's since 2019.

# 6.3. OLYMPIADS

## 6.3.1 INTRODUCTION

This report is a summary of the South African Computer Olympiad Annual Report containing statistics and results of the SACO annual contests. The financial year for this report ran for 12 months from 1 March 2020 to 28 February 2021.

### The South African Computer Olympiad

The SA Computer Olympiad (SACO) runs three school-based contests namely, the Talent Search, the Applications Olympiad and the Programming Olympiad. SACO is also the national organisation that participates in the International Olympiad in Informatics (IOI).

In 2020 the Computer Olympiad Trust administered the three school contests and participation in the international Olympiad for programming.

## 6.3.2 TALENT SEARCH

### Aims

Talent Search aims to identify learners with an aptitude for IT, encourage them to consider a career in IT or to take suitable subjects for a career in IT and to develop problem-solving.

### Target and Participating Groups

Talent Search was offered at five levels by grade group:

| | |
|---|---|
| Grade 5 and below | **Elementary** |
| Grade 6 and 7 | **Junior** |
| Grade 8 and 9 | **Intermediate** |
| Grade 10 and 11 | **Senior** |
| Grade 12 and above | **Elite** |

In an unprecedented 2020 year of COVID-19, the number of learners that were entered for the Talent Search dropped to **23 479**. In 2020 there were **160** schools that entered. A total of **4 741** learners took part in the Talent Search from **69** schools.

### 6.3.3 APPLICATIONS OLYMPIAD

#### Aims

The Applications Olympiad aims to identify, encourage and reward computer application skills, to promote and encourage the study of the school subject Computer Applications Technology (CAT) and to create an awareness of study and employment opportunities in the field of Information and Communications Technology.

#### Target and Participating Groups

Since 2010 the subject **"Computer Applications Technology" (CAT)** has been offered up to grade 12 at both state and independent schools. Typically, ten times more learners take CAT than those who take the subject Information Technology (programming). Many schools, including primary schools, offer some form of digital literacy in addition to the prescribed curriculum.

The number of learner entries was higher by **3 985** (up 23%) than any previous year. This was on account of the introduction of the more straightforward Basic Division. The number of schools increased by 2%. In 2020 there were **17 388** entries from **363** schools. A total of **6 460** learners took part in the first round of the Applications Olympiad from **248** schools. The number of learners that were invited to the second round were **820** from **163** schools of which **317** participated from **82** schools.

**Final Round:** The 2020 Applications Olympiad invited 11 Finalists to take part in the finals.



On 16 October at Hoërskool Waterkloof (Pretoria) Mr Tony Parry (CEO of the IITPSA) handed over the prestigious IITPSA trophy and the gold medal to the **Applications Olympiad winner, Justine Barwise**.

#### Sponsorship/Funding

The Institute of IT Professionals South Africa was the main sponsor of the Applications Olympiad.

## 6.3.4 PROGRAMMING OLYMPIAD

### Aims

The Programming Olympiad aims to identify, encourage and reward programming skills, to promote and encourage the study of programming, to create an awareness of study and employment opportunities.

### Background

This had its origins when Donald Cook, Mike Chiles, Pieter Waker and Peter Williamson met in 1981. It took a few years to take off, especially as sponsor Old Mutual insisted that the Olympiad should be a project of the CSSA (Computer Society of South Africa – now the IITPSA). In the first year **(1984)** there were only about **70** participants from **35** schools. However, the Olympiad grew, especially when the International Computer Problem Solving Contest was used as a First Round from 1987 onwards. By 1990 it was the biggest event of its kind in the world.

In **2020**, there were **3785** entries from **128** schools. A total of **824** learners took part in the first round of the Programming Olympiad from **95** schools. The number of learners invited to the second round were **335** from **79** schools, of which **329** participated from **79** schools.

**Final Round:** The 2020 Programming Olympiad invited 13 Finalists to take part in the finals. The Standard Bank Floating Trophy for the 2020 SA Programming Olympiad and the gold medal were awarded to Andi Qu at a ceremony held in late November at St John's College, Johannesburg, by Mr Tony Parry, CEO of the Institute of IT Professionals of South Africa.

### Sponsorship

Standard Bank has sponsored the Programming Olympiad since 2005.

### 6.3.5 THE INTERNATIONAL OLYMPIAD IN INFORMATICS (IOI)

#### Aims

The IOI aims to use the publicity around IOI to recruit participants for our Olympiads, to encourage and reward top learners in the Programming Olympiad, to establish peer group contact with similar learners internationally and to have a benchmark.

#### Background

The idea for an International Olympiad in Informatics originated within the International Federation for Information Processing (IFIP), and IFIP member, Professor Blagvest Sendov, a Bulgarian representative at UNESCO. They succeeded in getting it included in the Fifth Main Programme of UNESCO at the 24th General Conference of UNESCO in Paris in October/November 1987. The first IOI was held in Pravetz, Bulgaria from 16 to 19 May 1989. Since then 32 further IOIs have been held and another four are in the planning. South Africa's first IOI participation was in 1992 in Bonn, Germany. In 1997 South Africa hosted the International Olympiad in Informatics in Cape Town when more than 70 countries participated.

IOI Results are available on our website.

### IOI host countries

**2020**  Singapore Online (SA won 2 bronze medals)

**2021**  Singapore (planned for 20-27 June 2021)

## Participation

The seven top achievers from the previous year's Programming Olympiad were invited to take part in IOI training.

### Selected Team for the 2020 IOI

The following represented South Africa at the 32nd IOI in South Africa remotely (Host: Singapore)

| Surname | Name |
|---------|------|
| Qu | Andi |
| Naidu | Aaron |
| Wessels | Adri |
| Mowzer | Taariq |

| Team Leaders | |
|--------------|---|
| Rudner | Bronson |
| Cilliers | Tian |

## Results

The practice at the IOI is to issue medals to the **top 50%** of participants.

- **Gold** to **1/14**th of all participants
- **Silver** to **2/14**th of all participants
- **Bronze** to **4/14**th of all participants

**Andi Qu** and **Aaron Naidu** each earned a **bronze medal** for South Africa in 2020. Andi Qu obtained a high score in the bronze range. Thus South Africa has maintained its IOI standing among the 87 participating countries with an average of **two medals per year** (58 medals) in its **29 years** of participation.

## Sponsorship

South Africa's IOI participation is funded by Standard Bank as part of the funding for the Programming Olympiad.

### 6.3.6 STANDARD BANK TECHNOLOGY IMPACT CHALLENGE (SBTIC)

Since 2009 the SA Computer Olympiad has assisted Standard Bank with the running of the Standard Bank Universities Challenge (now known as the Standard Bank Technology Impact Challenge SBTIC). In January 2020 the SA Computer Olympiad was again invited by Standard Bank to set the questions and run the Heats in May. Questions were set by the SBTIC Scientific Committee consisting of Bennie Swart, Gerard Louw, Graham Manuell and Michael Cameron. However, due to the national closure of universities in response to COVID-19, Standard Bank cancelled the 2020 Technology Impact Challenge. It was agreed to keep the questions for a dry run should the SBTIC be resumed in 2021. A reduced management fee was paid to the SA Computer Olympiad for the development.

### Aims

The SBTIC aims to identify, encourage and reward programming ability, to identify, encourage and reward teams with limited resources, to create opportunities for students from both genders and to create opportunities for students from all backgrounds.

The SBTIC is the only university-level programming and technology contest of its kind in South Africa. Over the past three years the Standard Bank organiser, Veronika Penev, with many volunteers, have had impressive success in enabling participation from more teams and more universities. In 2019 this included two universities of technology and the new University of Mpumalanga. The Saturday Heats in May engaged 500 students in a 4-hour contest. Student teams from faculties other than Computer Science have been included, enhancing the notion that coding awareness is valuable across all disciplines.
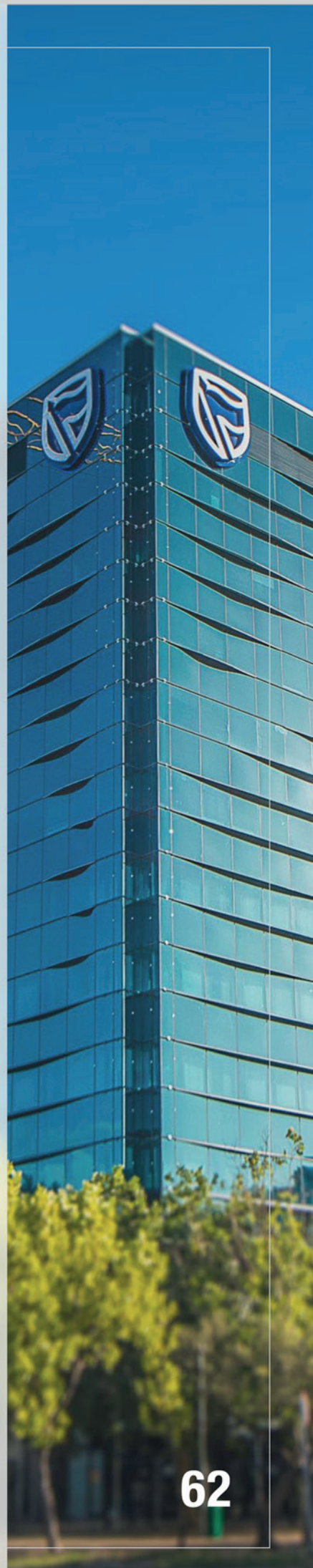
## 6.4 2020 JCSE-IITPSA ICT SKILLS SURVEY

Given the constraints imposed on most stakeholders by the COVID-19 pandemic in 2020, the IITPSA Board took the decision not to carry out the annual Skills Survey. The highly-respected report will return in 2021 and will examine the impact of the pandemic, together with the other changes in the South African ICT skills environment.

## 6.5  PROFESSIONAL DESIGNATIONS

Following the successful launch of the Pr.CIO® designation in 2019, there has been a small, but steady flow of members seeking this recognition of their achievement as C-level practitioners at SFIA level 7. We have continued to add to the number of members achieving the valued Professional Member grade (PMIITPSA®), which measures the competence of senior practitioners at SFIA level 5 and above. In 2021, we will introduce the broader-based certification of membership at SFIA level 3 and above.

## 6.6 IP3 ACCREDITATION

As is mentioned under the earlier 'Highlights' section of this Annual Report, IITPSA successfully applied to the International Professional Practice Partnership (IP3) of the International Federation for Information Processing (IFIP) to renew their accreditation of the PMIITPSA® certification scheme and to accredit the Pr.CIO® scheme for the first time - both of which are now valid for the next five years.

## 6.7 MEMBER SELF SERVICE (MSS)

Our planned introduction of the new MSS and member administration platform suffered a setback when our partner in the project withdrew their agreement to implement the system as had been agreed. IITPSA's management team has identified an alternative vendor that can meet the specifications for a high quality interaction for our members and an enhanced administration system. The project will commence in April 2021 and the target is to complete it at the end of August 2021.

www.iitpsa.org.za

# 7. CHAPTERS AND SPECIAL INTEREST GROUPS

## 7.1 EASTERN CAPE CHAPTER

### 2020 Past Events

The sudden onset of the COVID-19 pandemic in March 2020 resulted in 2020 being a difficult year for the Eastern Cape Chapter of the IITPSA. We had a gap in committee meetings from 19 March to 21 October 2020, with everyone trying to grapple with the many work and personal challenges posed by the pandemic.

In addition, we had to cancel our 2020 Regional Gala Awards Dinner, scheduled for 20 May 2020. Although we had nominations for our various awards in 2020, the committee has decided to postpone the Gala Awards Event to 2022.

A joint IITPSA/ISACA meeting took place on Thursday 5 March 2020 at the Nelson Mandela University (talks by **Dr Thomas Hilmer** and **Jerall Toi**). This was well attended with 32 attendees.

On 26 August 2020, we held our IITPSA Eastern Cape Chapter Women's Month Event. **Professor Darelle van Greunen** presented an excellent online WebinarJam talk on **"Leveraging ICTs in the Fight Against the COVID-19 Pandemic".**

### Committee Changes

**Angus de Beer** from **DiData** resigned from the committee due to work commitments. On Wednesday, 9th December, we bid a final farewell to **Dr Lester Cowley (Chairman)**, who resigned at the end of October 2020. **Prof Lynn Futcher** stood in as interim chair.

Our virtual AGM was held on 25 February 2021, using the Zoom platform where a new committee was appointed. Re-elected members included: Prof Lynn Futcher, Prof André Calitz, Mr Devereaux Joubert, Mr Kuda Nyamutsambira, Mr Harry Paleochoritis, Dr Sue Petratos. Newly elected members included Prof Kerry-Lynn Thomson (NMU), Mrs Belinda Samuels (DiData) and Mr Luzuko Tekeni (NMU).

During our Committee Meeting on 11 March 2021, Prof Lynn Futcher was elected as Chair and Prof Kerry-Lynn Thomson as Vice-Chair of the EC Chapter.

## Upcoming Events

The holding of face-to-face events in 2021 depends on whether the COVID-19 pandemic has sufficiently abated and when the Government permits the unrestricted holding of meetings and functions (below Alert Level 1).

Planned virtual events for 2021 include:

- Digital transformation talk by Jaco Maas of BKB.
- IT and CAT Teachers' Conference by Mbulelo Njamela and Landi Oosthuizen.
- Teacher training webinar providing online training opportunities for teachers teaching digital skills, CAT and IT.

Our annual Women in IT Event to celebrate Women's Month is scheduled for 18 August 2021. This is planned as a mask-to-mask event to be attended by 50 to 60 EC Women in IT. A guest speaker has been confirmed for this event.

Other virtual events are still to be decided, as the online environment provides many opportunities to invite experts in the field, both locally and internationally, without a significant cost impact. We need to leverage the technology we have available to us in holding such events.

## 7.2 WESTERN CAPE CHAPTER

The IITPSA Western Cape chapter  has a large and active Chapter Committee consisting of eleven committee members, including Pearl Pasi, the Chapter Chair.

The following Western Cape Chapter events were held during the year under review:

- **March 2020 –** Using Social engineering for good by Jamiela and Ghamza
- **July 2020 –** How to become Cyber Resilient and more Aware during COVID-19 by Terence Govender and Admire Gwanzura
- **September 2020 –** Panel discussion on the topic of  Breaking down barriers – How top women in IT succeed. The panel comprised of four inspiring women in IT and members of the IITPSA's Women in IT committee, namely, Moira De Roche (a Past President and a Non-Executive Director of IITPSA), Eleni Kwinana, Baratang Miya and Senele Goba (IITPSA Non-Executive Director)
- **November 2020 –** Sharing Technology Career experiences by Terence Govender and George Chinowaita

# 7.3 KWAZULU-NATAL (KZN) CHAPTER

## The Past

**FY 2020**

➤ **IITPSA KZN Chapter Event:** Virtual meetings from home - Cybersecurity & Etiquette, 24 June 2020 via Webinar Jam online by Bryan Baxter

➤ **IITPSA KZN blockchain SIG:** Bitcoin Cryptography, 9 July 2020 via Webinar Jam online by John Singh

➤ **IITPSA KZN Chapter Women's Month Event:** Data Privacy: POPIA, 31 August 2020 presented by Sarisha Kisten via Webinar Jam online

➤ **IITPSA KZN Chapter Event:** Using POPI as an opportunity to implement multiple best practices on 30 September 2020 via Webinar Jam online by Nolan Nadesan

➤ **IITPSA KZN CHAPTER Blockchain SIG:** A gentle introduction to bitcoin cryptography math presented by John Singh on 28 October 2020 via Webinar Jam online

➤ **IITPSA KZN CHAPTER Blockchain SIG:** Bitcoin Mining Demystified, 25 November 2020, online event via Webinar Jam by John Singh

➤ **IITPSA KZN CHAPTER Blockchain SIG:** Decentralized Finance security, John Singh, 24 February 2021

## The Future

**FY 2021**

➤ Annual General Meeting of members of the KwaZulu-Natal Chapter, 24 March 2021
➤ Blockchain SIG: Blockchain Africa 2021 report back, John Singh, 31 March 2021
➤ Security in the cloud, Bryan Baxter, April 2021
➤ CIO breakfast event , Location intelligence by Kamal Ramsingh, 5 May 2021
➤ Artificial Intelligence in the context of Africa, Tiger Chapanduka, June 2021
➤ KZN  careers expo, June 2021
➤ Women in IT event, August 2021
➤ Additional events to be confirmed

**Budget 2021/2022**

| No | Description | Budget |
|----|----|----|
| 1 | Women's Day Event | R 8 000 |
| 2 | Donation of one desktop computer to school | R 15 000 |
| 3 | Youth Day Event | R 3 000 |

### 7.3.1 KZN SPECIAL INTEREST GROUP: BlockchainSIG

SIG Chair: John Singh

The BlockchainSIG, a special interest group of the IITPSA, was started in the KZN Chapter in 2019. The objective of the SIG is to help people understand the complex technology behind blockchain so that they can make better decisions on how to use it. In 2020 all of the events were virtual and there was an increase in participation because the events were open to all provinces and not just the KZN Chapter. During 2020/2021 the following events were hosted by the BlockchainSIG:

1. Bitcoin cryptography event presented via webinar jam on 29 July 2020. This event went into the details of how cryptography is used in Bitcoin.

2. A gentle introduction to Bitcoin cryptography math presented via webinar jam on 28 October 2020. The members wanted a more basic introduction to the maths behind cryptography.

3. Bitcoin mining demystified presented via webinar jam on 25 November 2020. This presentation went into the technical details of bitcoin mining.

4. Decentralized finance security presented via webinar jam on 24 February 2021. This event discussed security concerns around DEFI and provided some tips on how to audit DEFI projects.

## 7.4 GAUTENG CHAPTER

Despite being the Chapter with the largest number of IITPSA members by a significant margin, the activities within the Chapter are almost entirely reliant on the events hosted by the Gauteng Special Interest Groups (for which we are very appreciative), and those organised out of the IITPSA National Office in Midrand.

We are appealing to interested, active IITPSA Gauteng members to be nominated as Chapter Committee members at the next Chapter AGM and to volunteer their time to grow the activities of the Chapter and membership of the Institute in the province.

## 7.5 GAUTENG SPECIAL INTEREST GROUPS

### 7.5.1   ARTIFICIAL INTELLIGENCE AND ROBOTICS (SIGAIR)

The Special Interest Group on Artificial Intelligence and Robotics at the IITPSA hosted four events during the 2020/21 financial year. These events were well attended, and the delegate feedback was overwhelmingly positive. All organisations are grappling to understand the impact of Smart Technology like Automation and the impact it will have on their workforce. The event guests all shared valuable guidance and information.

The last event for the financial year (and the first for calendar year 2021) was held In February 2021, when we hosted Sean Culey from the UK. He is the author of "Transition Point: From Steam to the Singularity." Sean offered a sweeping view of the history of innovation and the social impact. He also helped us view the future through the lens of where smart technology is taking the world. This very interesting discussion is available for access on the IITPSA YouTube Channel.

Look out for more events in 2021 with respected leaders and innovations in the smart technology era.

I wish to express my heartfelt thanks to Tony Parry and the team at the IITPSA for making these important events possible
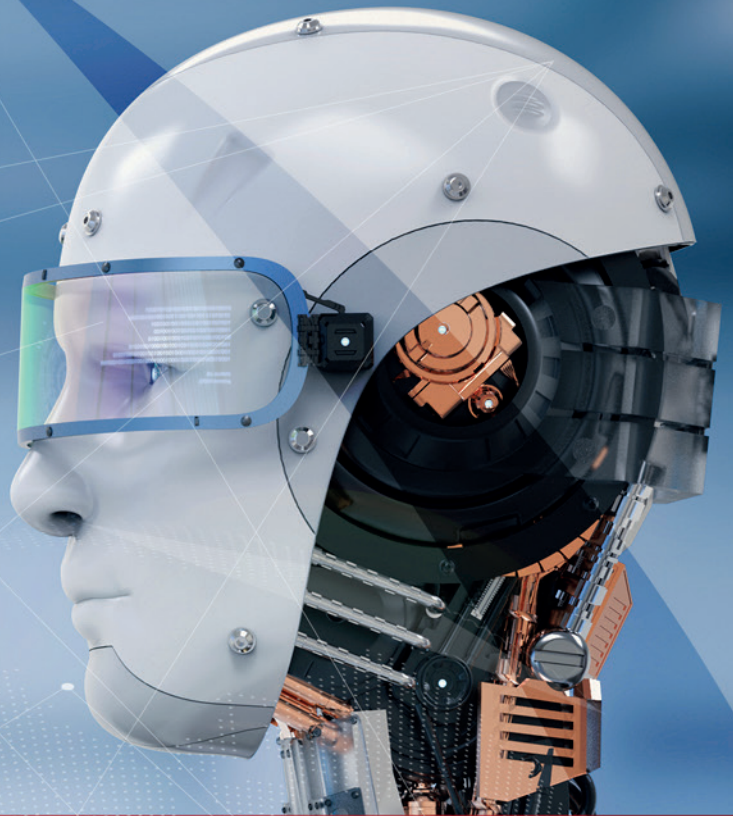
> **Look out for more events in 2021 with respected leaders and innovations in the smart technology era.**
>
> I wish to express my heartfelt thanks to Tony Parry and the team at the IITPSA for making these important events possible.

**Johan Steyn - IITPSA SIGAIR Chairperson**

### 7.5.2 SPECIAL INTEREST GROUP IN SOFTWARE TESTING (SIGiST)

I think it is an understatement to say that 2020 provided us with a multitude of curved balls, not the least of which being how we have had to change the way we congregate and have our events. SIGiST held two sessions during the year.

The first was an extremely interesting talk given by **Leela Putten** on September 23rd on a very apt topic in today's world, **"Is Enterprise DevOps overly ambitious?"**. This was a practical talk with several case studies covering various industries which highlighted the challenges and pitfalls encountered when taking the DevOps journey. The turnout was good, and the talk was enjoyed by all.

The second session was provided by **Akshaye Fotetar** on October 20th, titled **"Why are we testing?"**. He took us on a journey that would challenge our existence as testers as we move into a world of blurred roles and skill sets. This provided the audience the opportunity for some open discussion and a chance to reignite out testing passion. This year could be concluded as one of quality not quantity. The change in the way we do things provides us with the opportunity to broaden our horizons into the year ahead.

Rob Kerrich-Walker - SIGiST Chairperson
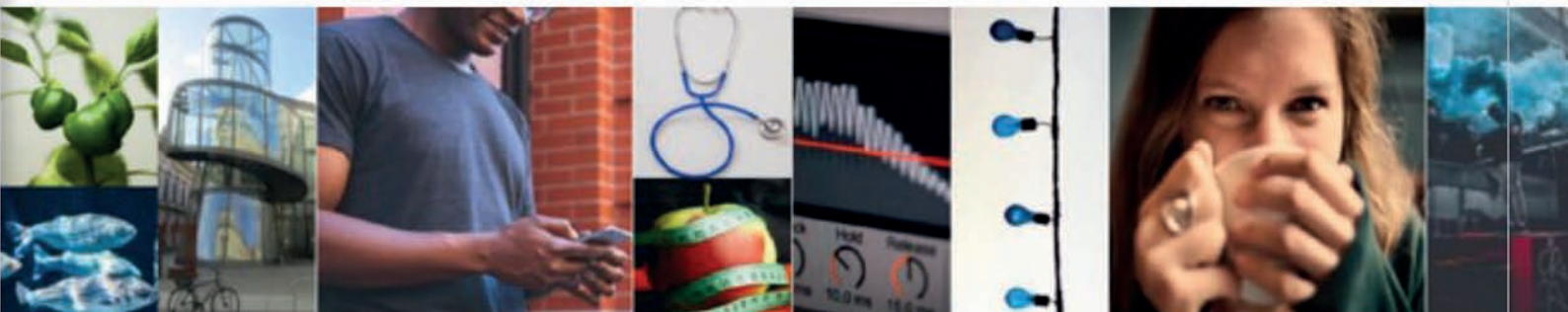
### 7.5.3 INNOVATION (InnovationSIG)

#### 2020

The Innovation SIG experienced a quiet year in 2020 but many Banks, and large corporates' news articles shared many new digital innovations and developments in the year. The better corporates and SMME's invested accordingly and made sure that they understood the inherent risks and advantages of automation, AI, AR, Ledger, and visual technologies. And all of us realised that some serious upskilling was in order. I began a journey in picking up Cloud Technology Skills.

## 2017 TO 2019 MEMORIES ON TWITTER #INNOVATIONSIG

The InnovationSIG is a special interest group of the IITPSA for the Innovation community which spans, and can support industries such as ICT, construction, agriculture, health sciences, mining, education, fashion, automotive, entrepreneurship, business, research, engineering disciplines, management, worker, and specialist roles.

InnovationSIG meetings will occur three to four times this year and will be announced soon.



The in-person or remote InnovationSIG agenda will include one or more of the following:

**1.** A short interview with one South African inventor.

**2.** One or two innovations from a specific industry.

**3.** Some important principles, trends, or methods for more optimized innovation results.

**4.** Using innovation to support entrepreneurship and job opportunities in South Africa.

## INNOVATIONSIG OBJECTIVES:

- Foster innovation to improve products, services, productivity, sustainability, and inclusiveness in SA.
- Showcase innovations from healthcare, agriculture, construction, business, ICT, manufacturing, and many other sectors. Businesses who wish to share innovations, may contact the InnovationSIG Acting chair for details.
- Educate members on innovation practices, benefits, and standards for individuals, organisations, and for industries.
- Explain different innovation approaches to solving important technical and social problems and their results.

## GAUTENG INNOVATIONSIG COMMITTEE:

Acting Chair: **Wayne Mallinson**

## COMMITTEE MEMBERS:

The InnovationSIG is calling for nominations of vice chair and three new committee members to help steer and run the Innovation SIG and its up-coming events.

You may also nominate yourself – candidates will be put to the vote. Please make yourself available and known to us if you have a passion for innovation and growing the Group.

For event announcements use **www.iitpsa.org.za** or **LinkedIn / Twitter** use **#innosigsa.**

## 7.5.4 CYBERSECURITY SPECIAL INTEREST GROUP (SIGCyber)

The SIGCyber was launched on the 5th December 2018 at an IITPSA breakfast event by **Dr. Kiru Pillay.**

The SIGCyber committee membership for the year ending February 2021 was as follows:

- Convener: Dr. Kiru Pillay **(SIGCyber@iitpsa.org.za)**

The SIGCyber committee for the new year ending February 2022 will be reconstituted at the next event, where committee positions will be nominated and elected.

The SIGCyber committee will encourage non-members of the IITPSA who attend functions and events to apply for membership of the IITPSA.

## PURPOSE OF THE SIGCYBER

SIGCyber is an IITPSA Special Interest group (SIG) for Cybersecurity and related communities of practice. The idea of the SIGCyber is to bring together people from diverse backgrounds who are either practitioners or academics, or are interested in Cybersecurity. The Cybersecurity domain encompasses technologies, policies, procedures and practices designed to protect organisations, institutions and citizens from attacks.

2020 / 2021 saw a large number of attacks against national infrastructure, data breaches involving the information of private citizens, and large-scale attacks against organisations. How the government and organisations respond is now under the spotlight and the type of enabling environment they foster to respond to these increasingly sophisticated attacks, is under scrutiny.

We need to separate the hype from the realities and to empower organisations and citizens to confidently interact in cyberspace. Local leaders in the Cybersecurity domain will be part of the SIG committee.

**The objectives of the group are:**

➤ To promote an understanding of the Cybersecurity domain and the nature of the threats we are facing.
➤ To promote knowledge sharing of the measures to protect organisations and individuals.
➤ To raise awareness around the issues relating to Cybersecurity.
➤ To encourage research in the Cybersecurity domain.
➤ To professionalise the domain.
➤ To facilitate discussion, debate and cooperation between Cybersecurity professional.
➤ To provide thought leadership.

The SIGCyber is especially relevant at a time when many organizations are needing to focus on their ability to protect confidential customer and organisation information. This is increasingly important due to the increase in cyber crime, and the passing of the Cybercrimes bill and POPIA.

## ACTIVITIES FOR THE YEAR

The SIG year runs from the 1st March until the 28th / 29th February each year.

The SIG was not active this past year.

Plans for the new year (ending Feb 2022):

- Due to COVID-19 and the ability to reach a wider audience, it is planned to make the SIG a National resource.
- Elect SIGCyber leadership and reconstitute the committee at the July event.
- A Virtual Panel discussion kick-off event for 2021 is planned for the 20th July 2021. Participants will be from Academia, the Private sector (FNB) and government (SARB) to be chaired by **Dr Kiru** and will cover various topics, such as:
  - Introduction and update on Emerging policy framework, overview of NCPF (National Cybersecurity Policy Framework) and national CSIRT – Dr Kiru
  - How to increase collaboration between all stakeholders to improve awareness and reduce cyber risk in South Africa
  - What are the panellists seeing in their respective areas
- Discussions on what the SIGCyber should focus on i.e. topics for future events.

## 7.6 WOMEN IN IT CHAPTER

The **IITPSA Women in IT Chapter (WIIT)** was formed by the Institute to help grow the awareness of, and participation in, the world of **ICTs by more women**. This is especially relevant and important when viewed in the context that women comprise only **17%** of the total IITPSA membership base.

Here is a progress update and future plans from the WIIT Chapter Committee:

### WIIT Logo
The new WIIT logo is complete and the website will be updated to reflect the new logo.

### IITPSA Bursary
StudyTrust presented two candidates for consideration. The WIIT committee will interview the two candidates and then award the successful candidate with the bursary.

### Mentorship programme
The WIIT Committee will investigate an app which could assist in the implementation of the mentorship programme. This app could also be used for all IITPSA members.

### Events
The committee will be arranging a virtual event titled **"The impact COVID-19 had on Women in IT"**. The committee is also in the process of arranging a series of events with a specific theme.

# 8. STAKEHOLDER COMMUNICATION AND ENGAGEMENT

## 8.1 HOW WE STAY IN TOUCH

The Institute engages with its members and stakeholders through a variety of channels, including those listed below.

- Email communication
- Monthly Newsletters
- Networking Events
- Annual General Meetings (Chapters and National)
- Social Media
- Annual Report
- Website

All of these are used in appropriate ways to grow awareness of IITPSA and its primary focus of increasing professionalism, ethical behaviour, professional standards and professional development.

## 8.2 WEBSITE

The IITPSA website (www.iitpsa.org.za) is updated frequently and provides a wealth of information, including:

- What the Institute stands for
- How ICT professionals can join
- Codes of Ethical Behaviour
- Newsletters, media releases and annual reports
- Upcoming events (both IITPSA's own events and supported third party events)
- Olympiads and Competitions
- Member benefits
- IITPSA Bursaries
- Skills survey reports
- Career advice
- Careers in ICT
- Twitter (IITPSA) and Sector News Feeds
- Videos - links to IITPSA's YouTube Channel
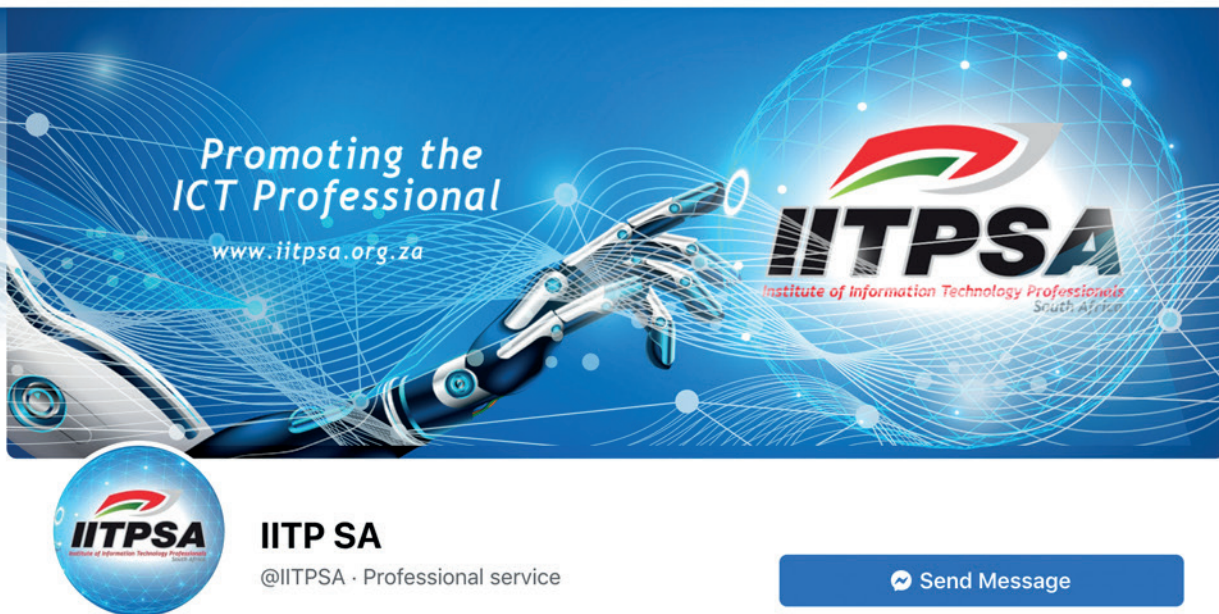
![IITPSA logo]

www.iitpsa.org.za
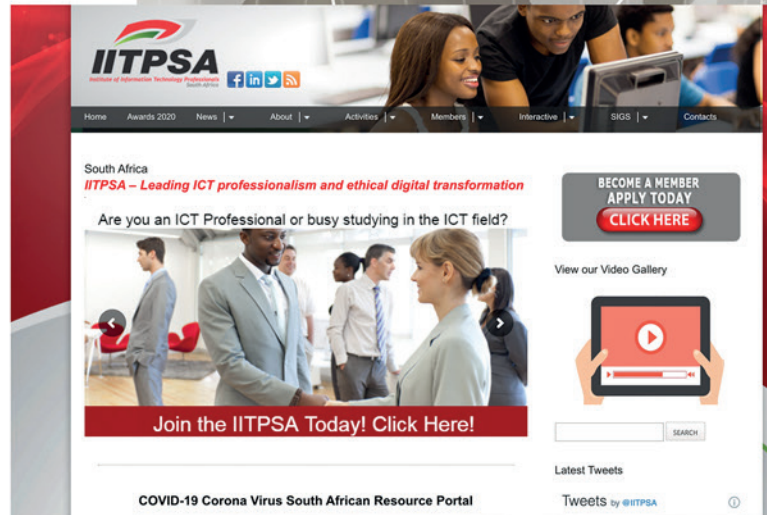
## 8.3 SOCIAL MEDIA

The IITPSA has a strong and active presence on the following Social Media channels:

- Facebook
- LinkedIn
- Twitter
- Instagram
- YouTube
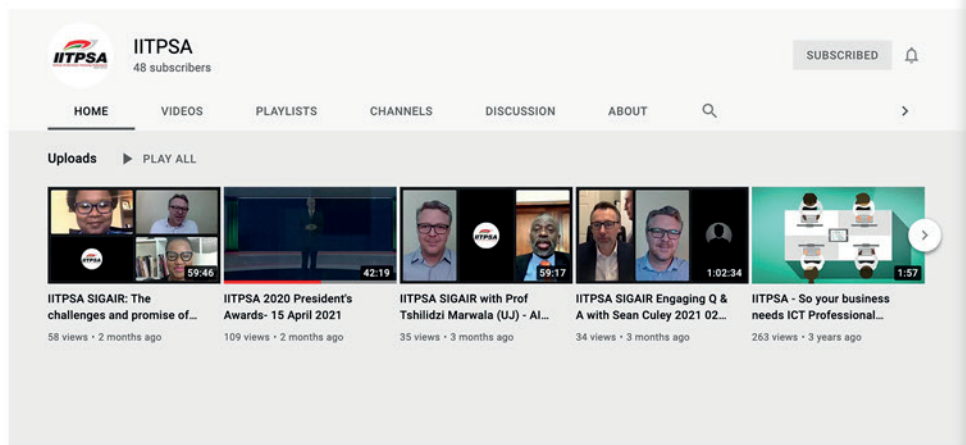


Interest and participation in IITPSA's social media channels have continued to grow, thanks to the increased events activity, media releases and posting activity of our outsourced digital marketing partners, as well as the thought leadership shown by the Institute through its Board members, Chapters and Special Interest Groups.



**IITP SA**

@IITPSA · Professional service

Send Message

Hi! Please let us know how we can help.

# 9. ABRIDGED 2020/2021 ANNUAL FINANCIAL STATEMENTS

## IITPSA NPC
(Registration Number: 1958/001036/08)

### Statement of Financial Position as at 28 February 2021

| Figures in Rand | 2021 | 2020 |
|---|---|---|
| **Assets** | | |
| Non-Current Assets | | |
| Property, plant and equipment | 92 954 | 89 806 |
| **Current Assets** | | |
| Trade and other receivables | 76 678 | 70 107 |
| Cash and cash equivalents | 23 862 483 | 26 684 812 |
| | **23 939 161** | **26 754 919** |
| **Total Assets** | **24 032 115** | **26 844 725** |
| **Equity and Liabilities** | | |
| **Equity** | | |
| Retained surplus | 21 936 715 | 24 150 474 |
| **Liabilities** | | |
| Current Liabilities | | |
| Trade and other payables | 169 369 | 258 043 |
| Deferred Income | 1 509 374 | 1 859 971 |
| Provisions | 416 657 | 576 237 |
| | **2 095 400** | **2 694 251** |
| **Total Equity and Liabilities** | **24 032 115** | **26 844 725** |

## Statement of Comprehensive Income

| Figures in Rand | 2021 | 2020 |
|---|---|---|
| Revenue | 6 004 563 | 10 824 303 |
| Cost of sales | (1 149 057) | (2 413 469) |
| **Gross surplus** | **4 855 506** | **8 410 834** |
| Other Income | 1 003 | - |
| Operating expenses | (8 329 274) | (8 131 464) |
| **Operating (deficit) surplus** | **(3 472 765)** | **279 370** |
| Investment revenue | 1 259 006 | 1 898 764 |
| **(Deficit) Surplus for the year** | **(2 213 759)** | **2 178 134** |
| Other comprehensive income | - | - |
| **Total comprehensive (deficit) surplus for the year** | **(2 213 759)** | **2 178 134** |

## Statement of Changes in Equity

| Figures in Rand | Retained surplus | Total equity |
|---|---|---|
| **Balance at 01 March 2019** | **21 972 340** | **21 972 340** |
| Surplus for the year | 2 178 134 | 2 178 134 |
| Other comprehensive income | - | - |
| **Total comprehensive income for the year** | **2 178 134** | **2 178 134** |
| **Balance at 01 March 2020** | **24 150 474** | **24 150 474** |
| (Deficit) Surplus for the year | (2 213 759) | (2 213 759) |
| Other comprehensive income | - | - |
| **Total comprehensive income (loss) for the year** | **(2 213 759)** | **(2 213 759)** |
| **Balance at 28 February 2021** | **21 936 715** | **21 936 715** |

**Statement of Cash Flows as at 28 February 2021**

| Figures in Rand | 2021 | 2020 |
|---|---|---|
| **Cash flows (used in) from operating activities** | | |
| Cash generated from (used in) operations | (4 028 949) | 4 046 |
| Interest Income | 1 259 006 | 1 898 764 |
| **Net cash from operating activities** | **(2 769 943)** | **1 902 810** |
| **Cash flows used in investing activities** | | |
| Purchase of property, plant and equipment | (53 389) | (88 129) |
| Sale of property, plant and equipment | 1 003 | - |
| **Net cash used in investing activities** | **(52 386)** | **(88 129)** |
| **Total cash movement for the year** | **(2 822 329)** | **1 814 681** |
| Cash at the beginning of the year | 26 684 812 | 24 870 131 |
| **Total cash at the end of the year** | **23 862 483** | **26 684 812** |

# 10. ABBREVIATIONS

| | |
|---|---|
| **AfICTA** | African ICT Alliance |
| **AI** | Artificial Intelligence |
| **AMIITPSA** | Associate Member of the Institute |
| **B-BBEE** | Broad-Based Black Economic Empowerment |
| **CAT** | Computer Applications Technology |
| **CEO** | Chief Executive Officer |
| **CIO** | Chief Information Officer |
| **CISO** | Chief Information Security Officer |
| **CPD** | Continuing Professional Development |
| **CTO** | Chief Technology Officer |
| **DBE** | Department of Basic Education |
| **DOE** | Department of Education |
| **EC** | Eastern Cape |
| **FIITPSA** | Fellow of the Institute |
| **HDI** | Historically Disadvantaged Individual |
| **ICT** | Information and Communications Technologies |
| **IFIP** | International Federation for Information Processing |
| **IITPSA** | Institute of Information Technology Professionals South Africa |
| **IoT** | Internet of things |
| **IP3** | International Professional Practice Partnership |
| **IRL** | In Real Life |

| **ISACA** | Information Systems Audit and Control Association |
|---|---|
| **ISC²** | International Information System Security Certification Consortium |
| **IT** | Information Technology |
| **JCSE** | Joburg Centre for Software Engineering (Wits University) |
| **KZN** | KwaZulu-Natal |
| **LLL** | Lifelong Learning |
| **MICT SETA** | The Media, Information and Communication Technologies Sector Education and Training Authority |
| **MIITPSA** | Member of the Institute |
| **MoI** | Memorandum of Incorporation |
| **NPC** | Non-Profit Company |
| **NQF** | National Qualifications Framework |
| **PGITO** | Provincial Government Information Technology Officer |
| **PMIITPSA** | Professional Member of the Institute |
| **Pr.CIO** | Professional CIO Member of the Institute |
| **SAIEE** | South African Institute of Electrical Engineers |
| **SAQA** | South African Qualifications Authority |
| **SASTQB** | South African Software Testing Qualifications Board |
| **SIG** | Special Interest Group |
| **SIGAIR** | Special Interest Group in Artificial Intelligence and Robotics |
| **SIGCyber** | Special Interest Group in Cybersecurity |
| **SIGiST** | Special Interest Group in Software testing |
| **SQA** | Software Quality Assurance |
| **STEM** | Science, Technology, Engineering and Mathematics |
| **VR** | Virtual Reality |
| **WC** | Western Cape |
| **WCC** | World Computer Congress |
| **WIIT** | Women in IT |

# IITPSA – Leading ICT professionalism and ethical digital transformation

www.iitpsa.org.za

# CONTACT US



📞 **+27 11 315 1319 / +27 87 655 1679**

✉️ **info@iitpsa.org.za**

**Our national office address is:**

IITPSA NPC
Unit 4 Probuild Commercial Park
347 James Crescent
Halfway House
Midrand
1685

Our postal address is: P O Box 1714, Halfway House, 1685