wired@IT

November 2017 Edition

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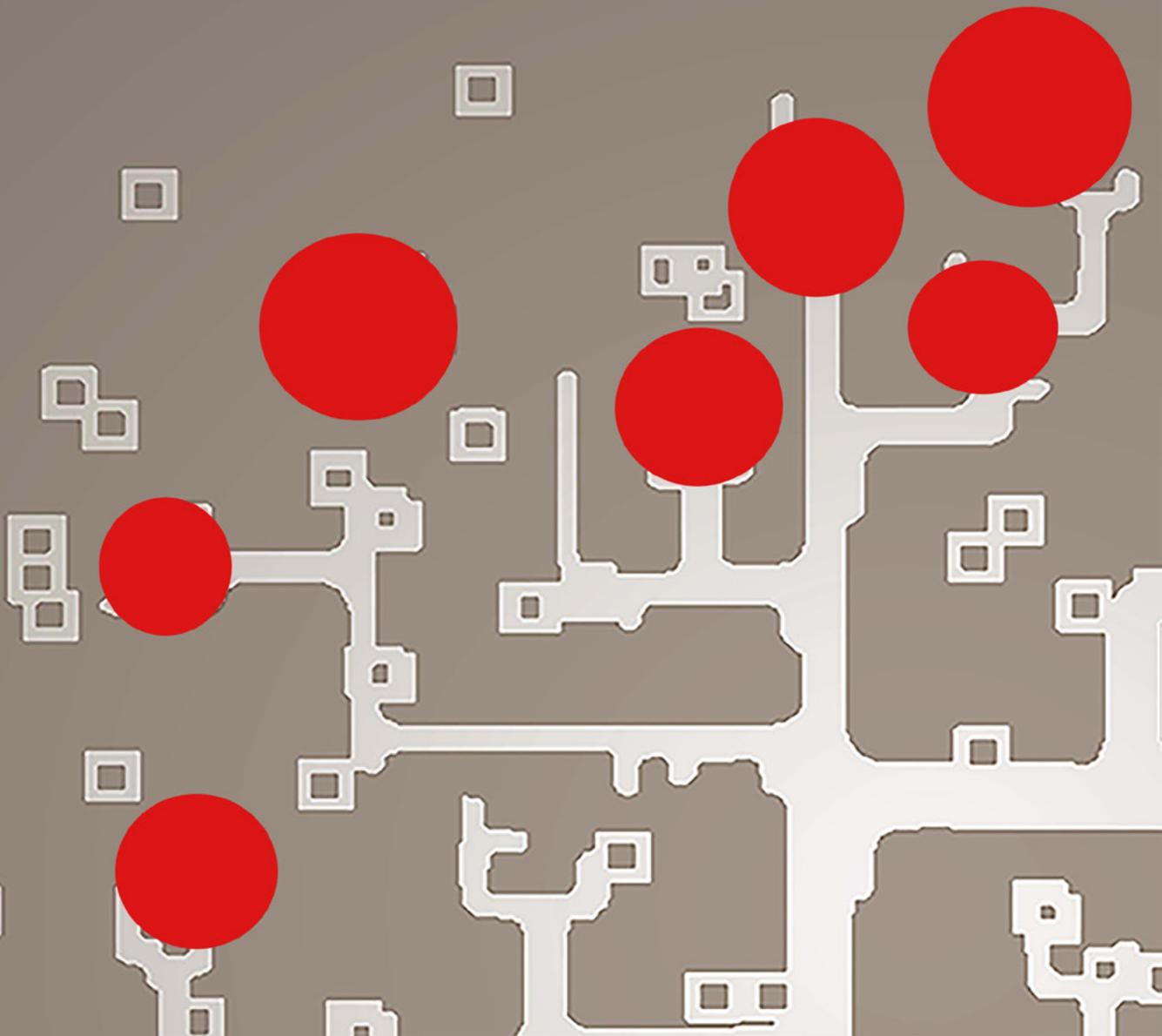
IT@NWU

PREFACE

RESTRUCTURING OF IT

The old ITC (Information Technology Central) department was also restructured as part of the broader unitary NWU. The new department is now only called Information Technology or IT. Although we functioned as unit across campuses for a long time now it was formalised in the middle of 2017.

THE CHANGES TO THE STRUCTURE INCLUDES THE FOLLOWING:

- All Campus Service Desks report in a brown line to IT and a yellow line to the campus.
- The Technology part of Audio Visual moved to IT
- Potchefstroom Campus Electronic Services moved to IT.
- The Library Information Services function reports to IT in a brown line.
- The IT structure has therefore expanded to 8 divisions with 188 staff members.

RSE Conference 2017

NWU INVOLVEMENT IN THE COMMUNITY IN FUTURE

SECOND ANNUAL RSE CONFERENCE

PRESENTED SOME INTERESTING STATISTICS

The second annual Research Software Engineers (RSE) Conference *(http://rse.ac.uk/conf2017)* was held on 7-8 September 2017 at the Museum of Science and Industry, Manchester *(https://www.msimanchester.org.uk)*. There were about 240 attendees from 12 different countries at the conference. The event had a program full of talks and different insights into the international RSE community. During the opening and welcome, some interesting statistics were presented from a survey conducted on RSEs in the UK in 2016 and 2017.

SOME OF THE STATISTICS READ AS FOLLOWS:

- Within the RSE community only about 15% are women.
- 75% of all RSEs code on a daily basis as part of their job.
- Python is the main coding language used by RSEs.
- All people working as RSE use about 3 different coding languages with the average being 5 coding languages and the maximum that any one RSE has used is 14 coding languages. there is a lack of understanding from the academic side of institutions as to what an RSE is and what they do. RSEs also get paid significantly less than their equally qualified academic colleagues.

From the 2017 RSE conference about 84% of attendees indicated they code on a daily basis, and about 50% of the attendees have been working in the RSE environment for more than 3 years, and 75% of all RSEs come from a Computational/ Computer Science background.

Some of the combined talks were quite insightful. Mike Croucher an EPSRC (Engineering and Physical Science Research Council) Research Software Engineer Fellow at the University of Sheffield talked about the difficulty he had getting funding to establish an RSE team at his university (his team started with him being appointed in a RSE role in 2012 and is now a 7 man RSE team). This point being stressed by many RSE Managers/ Heads of department at other universities. Some of the issues relating to this, according to Mike, are the fact that there is a lack of understanding as to what RSEs are and what they do, also where they fit in within the structure of the university as a whole. Some RSEs are staffed in academic posts where others are in IT or a pure support role and thus they work with academics but aren't academics themselves. Mike stressed the fact the RSE is a community that has to support each other because " no one knows how

to code a perfect piece of software from start to finish and if you think you know, you are lying to yourself and everyone else." A survey conducted by the University of Sheffield found that 92% of the corresponding researchers said they use some sort of research software on a daily basis, what this really means, remains to be understood.

Microsoft was one of the main sponsors of the conference and also presented a talk on Artificial Intelligence and whether they think AI can transform research. According to Microsoft we are still a long way from AI being able to identify and correctly interpret complex situations in the same way as the human brain. They do believe that AI can better the software use of researchers and their ability to do research as well as the effectiveness in which the research is done. Microsoft Azure has been working quite extensively with Jupyter *(http:// jupyter.org/)* to better the coding capability of researchers by using Jupytor notebook *(http://jupyter. readthedocs.io/en/latest/install. html)* to code using a variety of different languages to create applications, scripts, research software, and more. Every attendee also got a $500 USD Microsoft Azure voucher for the Azure cloud for a month.

Another notable talk was CoSec also known as the Computational Science Centre for Research Communities *(https://www. scd.stfc.ac.uk/Pages/CoSeC.aspx)*. CoSec launched a partnership with the RSE community at the Conference, and they are committed to help develop software in multiple disciplines and using multiple coding languages. CoSec also has a vision of becoming a knowledge exchange hub within the RSE community. CoSec is sponsored by 4 main bodies: BBSRC *(http:// www.bbsrc.ac.uk/)*, Science and Technology Facilities Council *(http://www.stfc.ac.uk/)*, EPSRC *(https://www.epsrc.ac.uk/)*, Medical Research Council *(https://www.mrc.ac.uk/)*. CoSec's main support will be for the Collaborative Computational Projects *(http://www.ccp. ac.uk/)* and the High-end computing facilities within the UK. During the conference the High-end Computing facilities of the UK elaborated on their six Tier 2 HPC facilities that are all sponsored by the Engineering and Physical Science Council (EPSRC) *(https://www.epsrc.ac.uk/newsevents/news/sixhpccentresofficially-launch/)*.

THE SIX TIER 2 HPC CENTRES ARE AS FOLLOWS:

- Cirrus *(https://www.epcc.ed.ac.uk/facilities/demand-computing/cirrus)*
- GW4 Isambard *(http://gw4.ac.uk/isambard/)*
- Joint Academic Data Science Endeavour (JADE) *(http://gtr.rcuk.ac.uk/projects?ref=EP%2F P020275%2F1)*
- Peta 5 (http://blogs.bath.ac.uk/computing-services/tag/peta-5/)
- HPC Midlands *(http://www.hpc-midlands.ac.uk/about/)*, and the
- EPCC Tier 2 *(http://www.research.ed.ac.uk/portal/en/projects/epcc-tier-2-hpc-service(1c7ca453-86b6-4a69-b49b-5b436f469656).html)*

During the conference we could partake in a few different workshops One of the workshops was on supporting researchers on the HPC from an RSE perspective. This was an eye opener for me, because I found that we at NWU IT have exactly the same obstacles and challenges that our counterparts in Europe and North America have. Some of the challenges that came up was supporting and teaching researchers to use computer clusters and get them used to command line, giving subject specific support instead of technical support to researchers, and getting information on how to install relatively unknown software on the cluster and get it to scale properly. These are all challenges that we face at NWU, thus we can safely presume that being part of this international community will also be beneficial in solving our own problems through collaboration and knowledge sharing. Some abstracts to the talks can be found on the RSE website: ***http://rse.ac.uk/conf2017/talk-abstracts/#tracking-impact-of-software-for-a-ref-case-study--experiences-from-the-texgen-project.***

THE MAIN SPONSORS FOR THE 2017 CONFERENCE WERE:

STUDENT CARD FACILITIES
EXTENDED TO VAAL TRIANGLE CAMPUS

This charming coffee shop, with the scenic campus view, and the delightful smells of bacon, coffee and fried onions, lingering in the air as you enter, now boast with an all new student card system. initiative forms part of the new restructuring process to promote administrative and academic coherence, efficiency and sustainable quality.

According to Me. Susan Stydom, Manager Books & Beans, no proper financial system was apparent to begin with. Due to the latter, IT@NWU has seen it fit to equip Books & Beans with the Varsity Vending (VV) cards, as payment mechanism. Susan informs that:" she is very excited about the new payment method as it poses so many advantages..."

KARL VAN DER MERWE
System analyst: BSS
RESPONSIBILITY: coding, analysis, testing, production and training.

JOHAN BADENHORST
System analyst: BSS
RESPONSIBILITY: coding, analysis, testing, production and training.

STUDENTS CAN PAY WITH THEIR STUDENT CARDS
AT BOOKS & BEANS
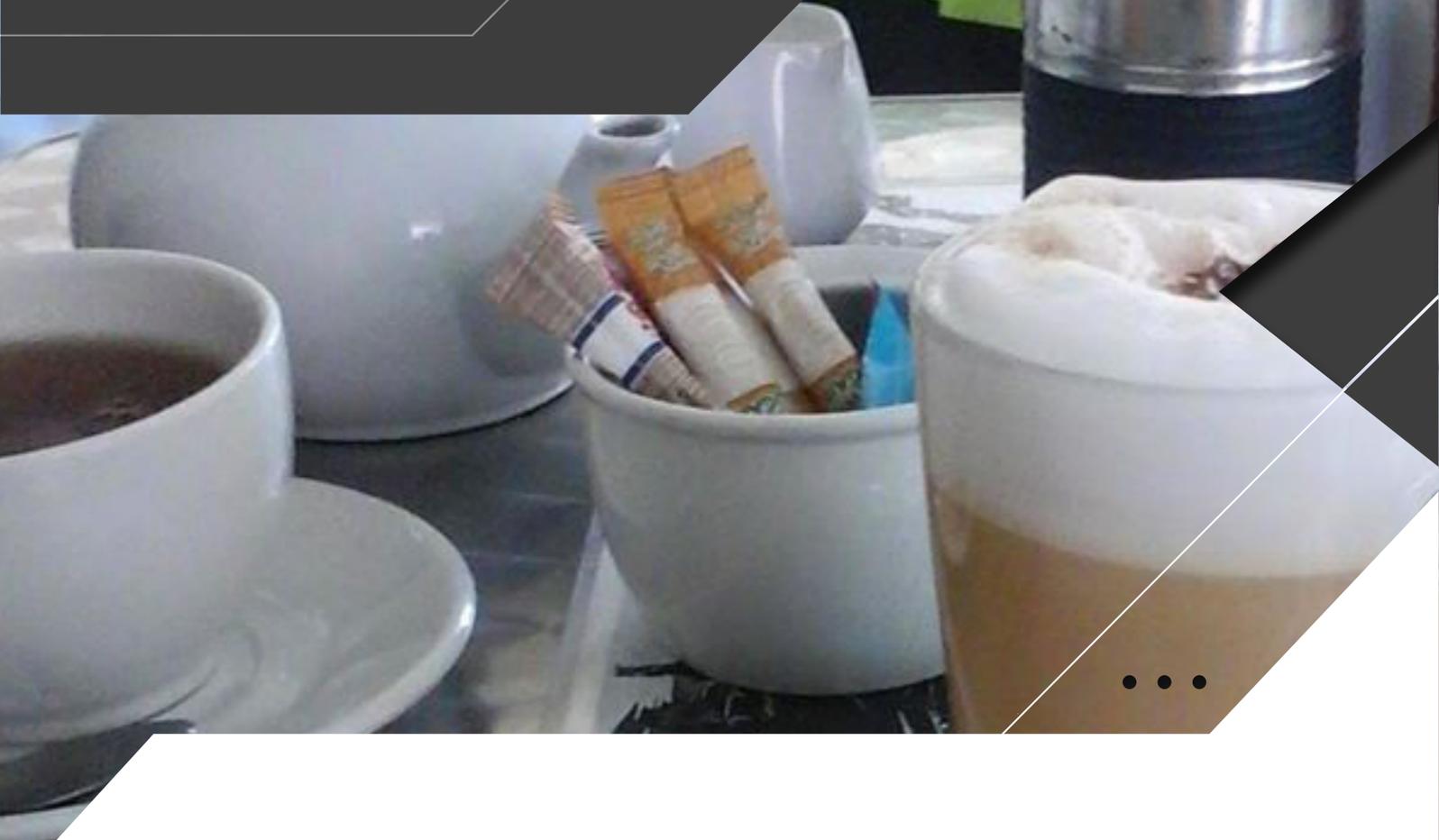
MANAGER BOOKS & BEANS
Susan Strydom

MAIN AIM OF BOOKS & BEANS?

"We strife to deliver an excellent service to our personnel and students. Books & Beans therefore supplies in the need of having a Coffee Shop, where meetings can beheld and where students can visit in a sociable atmosphere. Even our visiting guests from abroad, experience Books & Beans in the same way, and enjoy to spend time while ordering a snack in the company of the rector or professors, before attending a meeting..."

STUDENT CARDS
USERS AND STUDENTS ADVANTAGES

- It is a much saver option, because less cash will be carried around plus the student can budget for the month.
- The system is convenient for both students and personnel at Books & Beans.
- This poses a better solution for stock control and profit making. We can identify problem areas and reduce theft.
- It is a good "moral booster" as waiters are being empowered to use the system, which enhances their sense of worth.

WHAT DO THE VISITORS SAY ABOUT BOOKS & BEANS?

VOX POP

IT@NWU: ENABLED MISSING MIDDLE FEE
ADJUSTMENT GRANT

Government subsidised the annual increase of 8% on NWU tuition and residence fees for all qualifying registered students with a gross family income of R600 000 and less per annum in 2017. This is not a loan but a grant as stipulated by the Department Higher Education And Training (DHET).

In accordance with the above mentioned, senior management, Elmarie de Beer Executive Director Finance and Facilities, requested IT to assist in providing a solution to:

- capture all the missing middle applications in a central database,
- keep track of the supporting documents provided,
- manage the process to external service provider for verification of income,
- provide the ability to execute the grant to the students via his/her student's account and
- provide management information for audit and reconciling purposes.

Read more ...

PROSPECTIVE
STUDENTS
And Staff
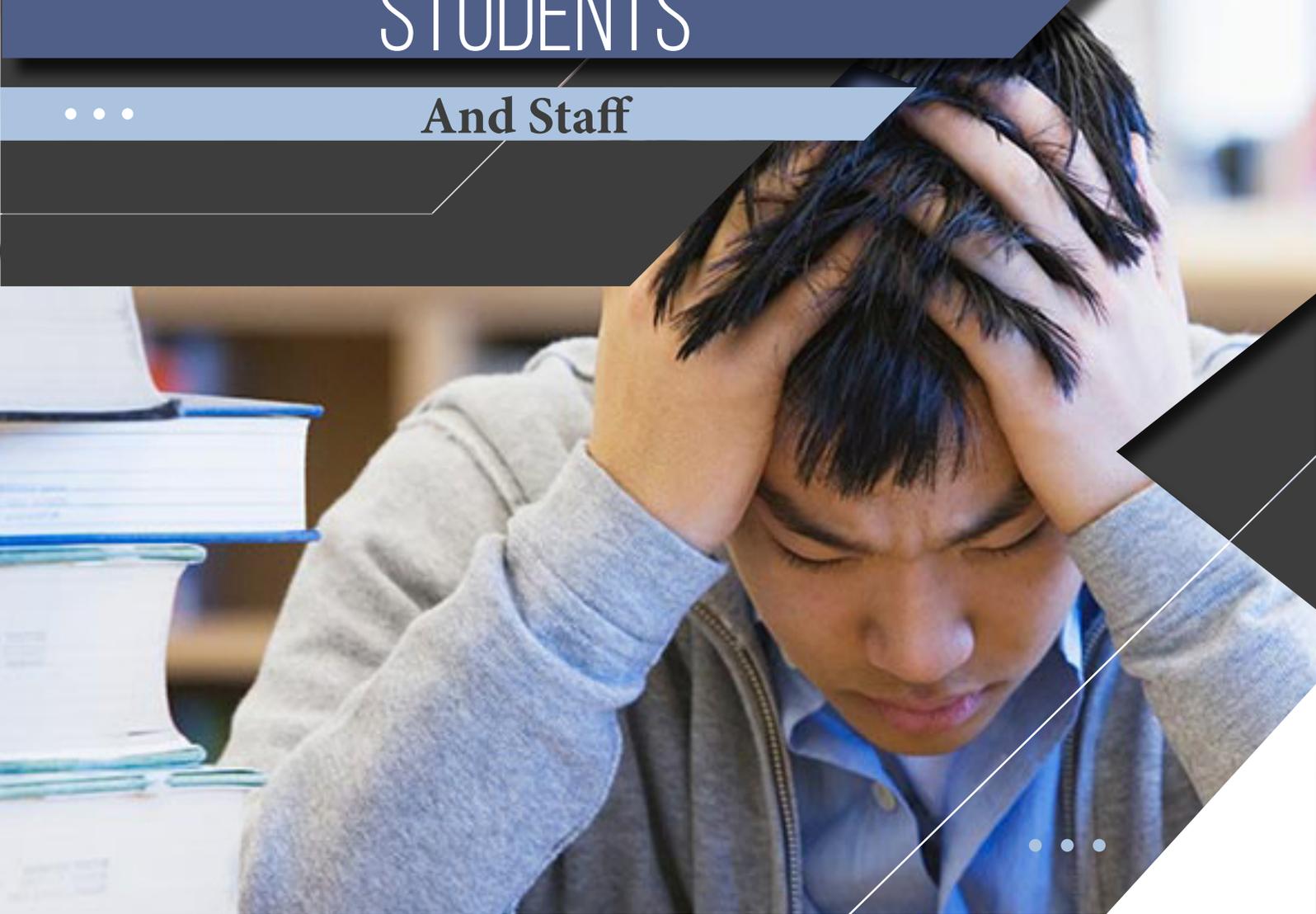
DIRECTOR BSS

"MARI PRINSLOO, DIRECTOR BUSINESS SYSTEMS, SHARE HER THOUGHTS..."

Elmarie de Beer (Executive Director Finance and Facilities), requested IT to assist in providing a solution to capture all the missing middle applications in a central database, keep track of the supporting documents provides, manage the process to external service provider for verification of income, provide the ability to execute the grant to the students via his/her student's account and provide management information for audit and reconciling purposes

MISSING MIDDLE CYCLE

THE ADVANTAGES ARE...

5 500 students already applied and received their grants. The system keep track of these applicants and manage the process. By supplying this solution, a huge number of manual activities are now automated, and deeming the process to be more effective.

WHAT DO STUDENT ADMINISTRATION SYSTEMS SAYS?

Elmarie de Beer
Executive Director
Finance and Facilities

Marelize de Lange
Director: Student Finances and Financial Related Systems

Corlia de Beer
Operating System Specialist

Maryke Venter
Senior Administrative Assistant Student Finances and Financial Related Systems

ELECTRONIC IRP5's

SO MUCH MORE CONVENIENT

THE NEW ELECTRONIC IRP5'S :
saving costs, saving time

BACKGROUND
Petro Wessels, Manager Payroll informs that:"The biggest advantage of the electronic IRP5's is, the fact that it brings about a huge saving component.

HOW DID IT WORK IN THE PAST?
In the past we were required to print all of the IRP5's at Xerox. Afterwards a temp had to fold every single one and place it in an envelope. Postage costs alone was mind dazzling….. Above and beyond this, people are actually receiving their IRP5's…"

ROALD VAN DEN BERG
System specialist: BSS
RESPONSIBILITY: coding and analysis.

ELECTRONIC
IRP5'S

A first for NWU

MANAGER PAYROLL
Petro Wessels

ARE THERE ANY SECURITY RISKS?

"The Receiver of revenue is already in possession of the original IRP5 copies, by the time the personnel receive it. In other words, the IRP5's have been loaded on the Receiver's system, so it is not possible to change any of the entries, as the Receiver will immediately pick up on it…"

NEED TO DO SOME CHANGES?

Bibliographical changes:
Estelle Rheeder - Human Resources Specialist
018-299 4609
Financial queries:
Petro Wessels - Manager Payroll
018-299 4984

IT@NWU: ASSISTS WITH TAX RETURNS

"It is this time of year again…. where we have to deal with our tax returns…" But this year it is slightly different. On 31 May 2017, NWU personnel received a @NWU notification, informing that the new electronic version is on its way. To find out, how personnel are perceiving the new electronic version of the earlier paper based IRP5, a few opinions were jotted down…

WHAT DO THE PERSONNEL SAY ABOUT THEI IRP5'S?

KAREN TREDOUX	MARTIE VAN DER MERWE	VINCENT EASTES	YVETTE LABUSCHAGNE
"Your IRP5 can never get lost or misplaced…"	"Extremely convenient, can't get lost in the post…"	"Our IRP5's, will always be available…"	"Paperless is much better by far, we save a lot of trees…"

NSFAS 2017
IT@NWU ENABLED INTEGRATION

IT@NWU: ENABLE THE INTEGRATION OF THE
2017 NSFAS CYCLE

REGISTRATION PROCESS AT THE NORTH-WEST UNIVERSITY

This article will take a look at the integration process and how the NSFAS cycle was incorporated in order to accommodate our students needs.

If we visit the North-West university's news website of 26 January 2017, a clear overview was given of where it all originated from... Elmarie de Beer, executive director for finance and facilities, state in the article, that the NWU is in constant dialogue with NSFAS and is committed to ensure that as many students as possible can be assisted to register. "According to NSFAS, they are constantly approving more students every day and expect to finalise all applications by close of business on 27 January 2017... "

HOW DID IT WORK IN THE PAST?

Previously the student had to visit http://www.nwu.ac.za/nsfas-bursary the website and complete a PDF application form. Currently the new applicants can apply online by means of the NSFAS website, which was available from 1 Augustus 2017 to 27 November 2017: *www.nsfas.org.za*

Me. Dassie Janse Van Vuuren, Business Analyst replies as follows: "NSFAS decided at the end of 2016 that the application process should be altered, due to the fact that a large number of our NWU students utilises NSFAS bursaries they were automatically absorb in the National project."

ELECTRONIC
NSFAS APPLICATION

• • • **No more hard copies**

BUSINESS ANALYST
Dassie Janse Van Vuuren

• • •

LEADING THE TEAM

Responsibility in the project: Integration
NSFAS services testing

THE BIGGEST ADVANTANGE

Is the time effectiveness the integration brought about, in other words the time it takes for approving the grant up to the actual payout thereof will greatly depend on how sufficient the system are being managed.
Students will receive their grants much quicker, the whole situation can be seen as "the money follow the student..." explains Dassie van Vuuren, business analyst of Business Systems from IT@NWU.

BUSINESS SYSTEMS TEAM
RESPONSIBLE FOR THE INTEGRATION PROCESS

ROALD VAN DEN BERG
System Specialist
Integration NSFAS
services testing

JOHANN OLIVIER
Business Analyst
Specification and testing
of new development on the
bursary and loans system

Automating
OF BANK STATEMENTS

IT@NWU: AUTOMATION LEADS TO QUICKER

DEPOSITS OF STUDENT FEES

PAYABLE FEES AT THE NORTH-WEST UNIVERSITY

Payment of tuition-, residence- and other fees lies with the student and / or, alternatively, the student's surety / co-principal debtor, depending on the circumstances, as stated on the website for prospective students. In order to ease the process of payment and verification, which by all accounts were much of a manual driven process in the past, Business Systems (BSS) took the opportunity to automate the previous method of handling the deposits.

HOW DID THE PROCESS WORK IN THE PAST?

Hanlie Venter, Manager: User System Coordinator and Johann Olivier Business Analyst BSS, explains that bank statements were previously extracted manually. Student fees and debtors formulated their own calculations to identify student numbers, in order to verify the various payments. Afterwards Excel sheets, were distributed to the cashiers, by which the receipts were loaded onto the system. Although an interim process, one receipt was created for the total amount. It deemed problematic as this receipt was not student specific. Then allocated on a student account specifying that this student had paid. The negative result was, many hours of manual capturing...

PAYMENTS DURING REGISTRATION

Annatjie Prinsloo, financial assistant explains: "These transactions may vary anything from 50 up to 400 transactions per day per bank. After capturing in excel, the cashier have to distribute receipts one by one ..."

Reference
IS EXTREMELY IMPORTANT

• • • **Use your student number**

FINANCIAL ANALYST
Loura Du Preez

STUDENT FEES & DEBTORS AIM ...

Student fees & Debtors (SFD) is a support department of the North-West University. SFD strives to serve all students and members of staff with friendly service. The aim of the department is to deal with the financial administration concerning student and sundry debtors, and everything related to it.

KEEP THE FOLLOWING IN MIND

Hein Fielies and Angelo Harwood, financial assistants of student fees and debtors, request that the following be adhere to, when undertaking student payments:

- Place the student number correctly in the allocated space which is indicative of the reference number
- Proof of payment should be send to us, this can alleviate numerous misunderstandings
- The POPI Act, prevents Banks to distribute personal information, it becomes increasingly difficult to trace where a payment as originated from, if there is a lack off or an incorrect student number...

STUDENT FEES AND DEBTORS TEAM
ASSISTED WITH THE INTEGRATION PROCESS

ANGELO HARWOOD
Financial assistant

ANNATJIE PRINSLOO
Financial assistant

ESTHER VAN HEERDEN
Head: Cashier and Bank Receivables

HEIN FIELIES
Financial assistant

New horisons

EXCITING OPPORTUNITY FOR GAWIE & FAMILY AWAITS

TO LEAVE THE COUNTRY IS A BIG STEP

"WHAT WE WILL MISS, IS THE SPECIAL PEOPLE AND THE FRIENDSHIPS WE HAD..."

IT IS OFFICIAL... GAWIE AND HIS FAMILY WILL DEPART SOON FOR BOURNEMOUTH, UK

Gawie le Roux reveals, with a sparkle in the eye, that his new job from the 1st of December will be in the United Kingdom at Bournemouth University as an IT Business Systems Analyst. It all started when his wife, Tanya, accepted a position a few months ago at the same university as a Senior Lecturer in Corporate Communication. If all goes according to plan, they will be leaving SA on 25 November, with their two children and two dogs in tow.

TELL US MORE ABOUT YOUR TIME AT NORTH-WEST UNIVERSITY

"Tanya was appointed as a Lecturer at NWU in 2004. I was fortunate to be appointed a few months later as Student IT Coordinator at the old ITB. I enrolled for a B Com degree in 2005 and although it was challenging to study while working, I was able to complete my studies in 2008. In 2007 I resigned as Student IT Consultant and joined G3 Business Solutions as Project Manager. But in 2013 I returned to NWU as Senior IT consultant. I will always treasure the memories of working at the IT Department and the wonderful colleagues I got to work with. I will also remain proud of my association with the university and I am grateful for the opportunities it afforded me and my wife over the past 13 years."

HOW DID YOUR CAREER PREPARE YOU FOR THIS OPPORTUNITY?

Looking back, Gawie considers every position he held as stepping stones that enabled him to progress in his career and build a skillset to confidently approach the future. "Because of the skills and experience I gained at North-West University, I know that I will be able to add value to IT Services at Bournemouth University. I was blessed to be part of the great AOS team where I was exposed to many opportunities to combine my love for people and technology. Hopefully I can do the same in the UK!"

Video Conferencing @NWU

What to keep in mind

WHO INITIATES A VIDEO CONFERENCE MEETING?

● If you have to join an external video conference meeting, the host will choose the video conference platform (the software used to connect) and provide you with an invitation (usually an email containing a meeting URL). The host will determine the appointment time and should coordinate a test session to successfully connect ahead of the actual meeting.

● If you are responsible for arranging a video conference meeting, you have to choose the video conference platform, schedule the meeting time, and invite participants to the meeting by sending them a meeting URL. You also have to coordinate the testing of successful communications ahead of the actual meeting.

HOW DOES ONE PARTICIPATE IN VIDEO CONFERENCE MEETINGS?

● If a video conference meeting is scheduled between geographically distributed individuals, each participant can connect from their own office, using their own computer or mobile device.

● If more than one participant has to connect from the same location, equipped video conference venues can be used for groups of participants, if available.

WHO IS RESPONSIBLE FOR VIDEO CONFERENCE VENUES?

● Each permanently installed video conference meeting venue has a responsible person, a venue coordinator, who needs to acquire skills in managing video conference meetings through repeated use. This builds confidence in using the equipment and software.

● For formal video conference meetings, it is essential to test successful communications ahead of the actual meeting, at least 24 hours before the meeting. This will allow local as well as remote participants to obtain support in time to enable successful participation.

WHERE DO YOU START IF YOU DO NOT HAVE ESTABLISHED SKILLS TO CONFIDENTLY PARTICIPATE IN VIDEO CONFERENCE MEETINGS?

● Log an *IT-Help* request, well in advance (2 days) of the intended video conference meeting.

● Practice using video conference technology, in order to build your confidence and successfully participate in video conference meetings. Informally connecting to others in your supporting environment using your computer or mobile device will assist you to acquire video conference skills.

WHICH VIDEO CONFERENCING PLATFORMS ARE COMMON AT NWU?

● **Adobe Connect** has been in use at NWU for a number of years as a video conference platform and is still available for communication and sharing content across campuses, mostly used for participants internal to the university.

● **Vidyo:** Two years ago, the Ter-

tiary Educational and Research Network of South Africa (TENET), made Vidyo available as a video conference service for universities and researchers with the following advantages:

● Vidyo can be used to communicate and share content across universities and research institutions internationally.

● If some participants do not have internet access, connections to Vidyo meetings are possible via fixed-line or mobile telephone. In such cases video and document sharing would not be available to telephone-only participants.

● When multiple computer screens (on extended desktop view) are available, video images of participants may be shown on one screen, while shared documents and other electronic content can be displayed on another screen.

● All NWU staff members potentially have access to their Vidyo accounts through the Central Authentication Service (CAS) logon *(https://nwu-vc.tenet.ac.za)*, using a valid staff university number and network password.

OTHER VIDEO CONFERENCING PLATFORMS

When receiving video conference meeting invitations from external participants, any web-based video conference platform could be used on your computer or in permanently installed video conference venues at NWU.

It is crucial to test communication in advance by connecting to remote participants to provide opportunities to successfully connect, especially regarding formal meetings where multiple participants are involved.

NEED MORE HELP?

CONTACT YOUR SUPPORTING CAMPUS
AT THE FOLLOWING NUMBERS:

MAFIKENG CAMPUS
Building A1, Room 131
(+27 18) 389 2370/1

POTCHEFSTROOM CAMPUS
Building F20, Room 111
(+27 18) 299 2700

VAAL TRIANGLE CAMPUS
Building 8, Room 120
(+27 16) 910 3321/4

MEET THE ECOMMUNICATION PROJECT LEADERS

HENNIE ESTERHUIZEN
Snr Research
Analyst

VERNON STRONG
IT Consultant

No need to stay late

USE VPN AND WORK IN THE COMFORT OF YOUR OWN HOME

UNBELIEVABLE!

HOW DO I REQUEST FOR VIRTUAL PRIVATE NETWORK (VPN)?

Staff

THE LINE MANAGER HAS TO PROVIDE PERMISSION FIRST, BY MEANS OF A

- GroupWise email motivation, accompanied by his/her signature, addressed to you
- Log a ticket and copy and paste the GroupWise motivation and signature into the service request,
- or alternatively, contact your IT Service Desk by clicking your corresponding campus name: Mafikeng, Potchefstroom, or Vaal Triangle.

Internet at home is a requirement. You first must be able to access via an external ISP (or the PCN network) which must already be in place. The VPN makes a connection on top of the current Internet Connection.

EMAIL US   VISIT US

ONLY VPN FREE
NOT YOUR ISP

· · · View full infographic here

POST GRADUATE STUDENTS ONLY

CONTACT YOUR IT SERVICE DESK

By clicking your corresponding campus name:

MAFIKENG
POTCHEFSTROOM
VAAL TRIANGLE

Students and Staff

Click to view the VPN Guide or alternatively use the following url - http://www.nwu.ac.za/sites/www.nwu.ac.za/files/files/i-information-technology/service-catalog/vpn/VPNInstallationGuide.pdf

NEW EMPLOYEES

Faisal Syed
Student Support Division
Nokubonga Nene
Service Desk Assistant
To our new employees, welcome to the team. We look forward to having you on board.

IT@NWU

ACHIEVEMENTS

Andile Yona - MTI certificate 2017
Edward Jantjie - Facilitator and Assessor certificate - 2016
Jim Mamphoke - Facilitator and Assessor certificate - 2016
John Molefe - Cisco CCNA Routing & Switching - Completed
John Molefe - Red Hat System Administration - Attended part I (RH-124)
Phillip Engelbrecht - A+ and N+
Congratulations guys on your success! You have made us all proud. Keep up the good work!
IT@NWU

RESIGNATIONS

Albert Pienaar
Claire Buckle
Dewald Nolte
Gawie Le Roux
Karl Van Der Merwe
Pieter Labuschagne
Thabiso Kok
Wally Du Plessis
It is hard to say goodbye to a colleague, but we wish you well on your future endeavors!
IT@NWU

CONGRATULATIONS

Happy Birthday to our extraordinary colleagues who had celebrated a birthday, working with you guys are a great honor and a joy !
IT@NWU

NEW ARRIVALS

Barend and Maria Pretorius - baby girl - Carmien - Friday - 6 October 2017
Ashwin Soois en Semené Kok - baby boy - Mason - Saturday - 25 October 2017
Wim and Maryna Ranking - baby girl - Miané - Saturday - 7 October 2017
Congratulations on the newest addition to your family.
IT@NWU

CONDOLENCES

Our deepest sympathy to you and your family for those of you who had suffered a loss.
Our hearts go out to you in your time of sorrow.
IT@NWU

talk2IT@nwu.ac.za

We Deliver the IT Promise

Should you wish to provide us with feedback, feel free to drop us an email at
talk2IT@nwu.ac.za