

Peter Howells

PROFESSIONAL PROFILE

I started my education at St Henry's Marist College and went on to Technikon Natal. Thereafter I spent four years working as an instrumentation and control engineer before entering the education field as a lecturer where I stayed for 24 years before moving to teach IT at High School level.

I am proficient in the design of electronic embedded systems and in both wired and wireless networking solutions. I am skilled in python, Visual Basic, Delphi, Java, MATLAB, and embedded-C programming. I have been involved in the design and implementation of electronic instrumentation and control projects, both individually and as part of a team.

In the education field I have designed new course curricula and lectured various courses including instrumentation, programming, computer network systems, and control systems. I have authored textbooks and training manuals, some of which are available online, and are currently being used in other institutions.

CONTACT DETAILS

Mobile **083 662 0834**
Email **peter_howells@outlook.com**
Address **Cowies Hill Park
Pinetown, 3610**

EDUCATION

St. Henry's College (Marist Brothers), Durban
1978 to 1986

B Aggregate, 1st XV Rugby Captain, Rugby Honours, Athletics Honours, House Captain, Prefect

Technikon Natal, Durban
Nat. Diploma (Electronic Engineering)
1993 to 1994

Technikon Natal, Durban
B.Tech Degree (Electronic Engineering)
1996 to 1998

Completed part-time while working.
Two Distinctions (Control Systems, Microcontroller Programming)

Technikon Natal, Durban
Mini MBA Programme (Business Studies Unit)
2001

WORK EXPERIENCE

Kohler Flexible Packaging (Instrument Engineer)
June 1994 to February 1997

Maintained existing machinery including the instrumentation and industrial networks; Planned, managed, and configured new installations; Worked on various projects in the machine control and instrumentation fields; Worked closely with other disciplines on the Health and Safety committee to obtain and thereafter maintain the ISO9001 safety rating.

Durban University of Technology (Lecturer)
Head of Instrumentation and Control (2016 – 2020)
February 1997 to July 2021

I have experience in lecturing the following subjects in the electronic engineering field: Programming (VB, C++, python), Digital Systems, Process Instrumentation, Software Design, Digital Data Communications, Network Systems, Control Systems, Project Management, Technical Literacy.

I have managed various Industrial Projects at B.Tech level, and have written textbooks and training manuals for both DUT and UNISA.

Northwood School
January 2022 to present

Teaching IT and programming Grades 8 to 12 and re-curriculating the Grade 8 robotics course.

SKILLS

Technical Skills

- Analogue and digital electronic design including microcontroller programming
- PCB design
- Digital communication protocols
- Wired and wireless TCP/IP Ethernet network implementation
- Instrumentation design, installation, and maintenance
- PLC installation and programming
- Certified Profibus installer
- Fault-finding

Management

- I have successfully supervised and managed a variety of industrial projects completed by students as part of their degree qualification
- I was head of the Instrumentation and Control section of the department from 2015 to 2020 where I successfully managed the efficient running of this section including planning new curricula, ordering equipment, liaising with students and governing bodies (SAIMC), and collating information for ECSA.

Programming Skills

- Python
- Visual Basic
- C++
- MATLAB
- PLC programming

Language Skills

- I have authored the following books:
 - “Visual Basic 6 for Engineers and Technicians”, Quad Technologies Publication.
 - “A Short Course in MATLAB”, Quad Technologies Publication.
 - “An Introductory Course in Python for Engineers”, Amazon Kindle
- I have authored study guides and textbooks in the Instrumentation field for UNISA.

Short Courses Completed

- Industrial Data Communications (2008)
Automation Training Council
- Certified PROFIBUS Installer (2008)
PCC - PROFIBUS Competence Centre Southern Africa

All certificates and copies of textbooks and training manuals mentioned in this CV are available on request either as a hardcopy or via email. Alternatively, they may be viewed at <https://www.howells.co.za> by selecting “CV and Qualifications”.

REFERENCES

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|----|-----------------------|--------------------|--------------|-----------------|
| 1. | Dr Trevor Pillay | trevorpi@dut.ac.za | 084 603 4586 | Senior Lecturer |
| 2. | Gary Janse van Vuuren | garypjv@gmail.com | 073 280 8517 | Senior Lecturer |