



The South African Institute of Computer Science
and
Information Technology

The 1997 National
Research and
Development
Conference

Riverside Sun
Vanderbijlpark
13 & 14 November

Hosted by



Potchefstroomse Universiteit
vir Christelike Hoër Onderwys

The Department of Computer Science and Information Systems
Potchefstroom University for Christian Higher Education
Vaal Triangle Campus

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PROCEEDINGS

Edited by L.M. Venter & R.R. Lombard



The South African Institute of Computer Science
and
Information Technology

Proceedings
of the
The 1997 National
Research and
Development
Conference
Towards 2000

Riverside Sun
Vanderbijlpark
13 & 14 November

Edited by
L.M. Venter
R.R. Lombard

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Foreword

This book contains a collection of papers presented at a Research and Development conference of the South African Institute of Computer Scientists and Information Technologists (SAICSIT). The conference was held on 13 & 14 November 1997 at the Riverside Sun, Vanderbijlpark. Most of the organization for the conference was done by the Department of Computer Science and Information Technology of the Vaal Triangle Campus, Potchefstroom University for Christian Higher Education.

The programming committee accepted a wide selection of papers for the conference. The papers range from detailed technical research work to reports of work in progress. The papers originate mainly from Academia, but also describe work done in and for Industry. It is hoped that the papers give a true reflection of the current research scene in Computer Science and Information Technology in South Africa. Since one of the aims of the conference is Research development, the papers were not subjected to a refereeing process.

A number of people spent numerous hours helping with the organization of this conference. In this regard, we wish to thank the members of the Organizing committee, and the Programming committee who had very little time to screen the abstracts and compile the program. A special thanks goes to the secretary of the department, Mrs Helei Jooste, whose very able work was interrupted by the birth of her first child.

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The emerging role of the CIO in South Africa

Branden Dekenah

The Board of Executors

The role of the Chief Information Officer (CIO) and all that it represents has inspired much discussion and speculation, as well as varied and heated debate, in overseas publications. In South Africa however, the title Chief Information Officer is hardly used for the top IS Executive and there is very little academic research in the area.

To better understand the situation the study adopts an exploratory approach and produces a rich description of the CIO. Using a multiple case study approach, South African CIOs were interviewed and artefacts were collected, which resulted in a description of the South African CIO.

The findings suggest that in certain industry sectors, the South African CIO is very similar to findings on CIOs overseas. However, the underlying reason for this occurrence was, that the South African CIO who reports to the highest level in the company and is substantially involved in strategic business planning, is most like the CIO described in overseas research.

South African CIOs could expect to keep their jobs longer. Over half the CIOs surveyed had more than 21 years experience in Information Systems (IS) and only 30% of their predecessors had been dismissed. When the company looked to filling the top IS position, the successful candidate was most often promoted from within the company, from the IS department. South African CIOs were also spending less time with the corporate executives and were less involved with the development of IT Architecture.

These findings have several important implications. Firstly, the CIO who is similar to the overseas description, is in a better position to follow the recommendations of the overseas research regarding their role. Secondly, those who do not fall into the category above, should exercise caution when following the overseas recommendations on this subject area. They may want to be more like their overseas compatriots, but the important question to ask, is whether their business can use and support such a position. Lastly, CEOs of businesses defined above, who are looking to fill the role of CIO, need look no further than the most experienced IS individual in their own company. As long as this person rates Business and Technical know how as his/her top attribute, has sufficient social skills and over 20 years experience in IS/IT, he/she will most likely be the correct candidate.