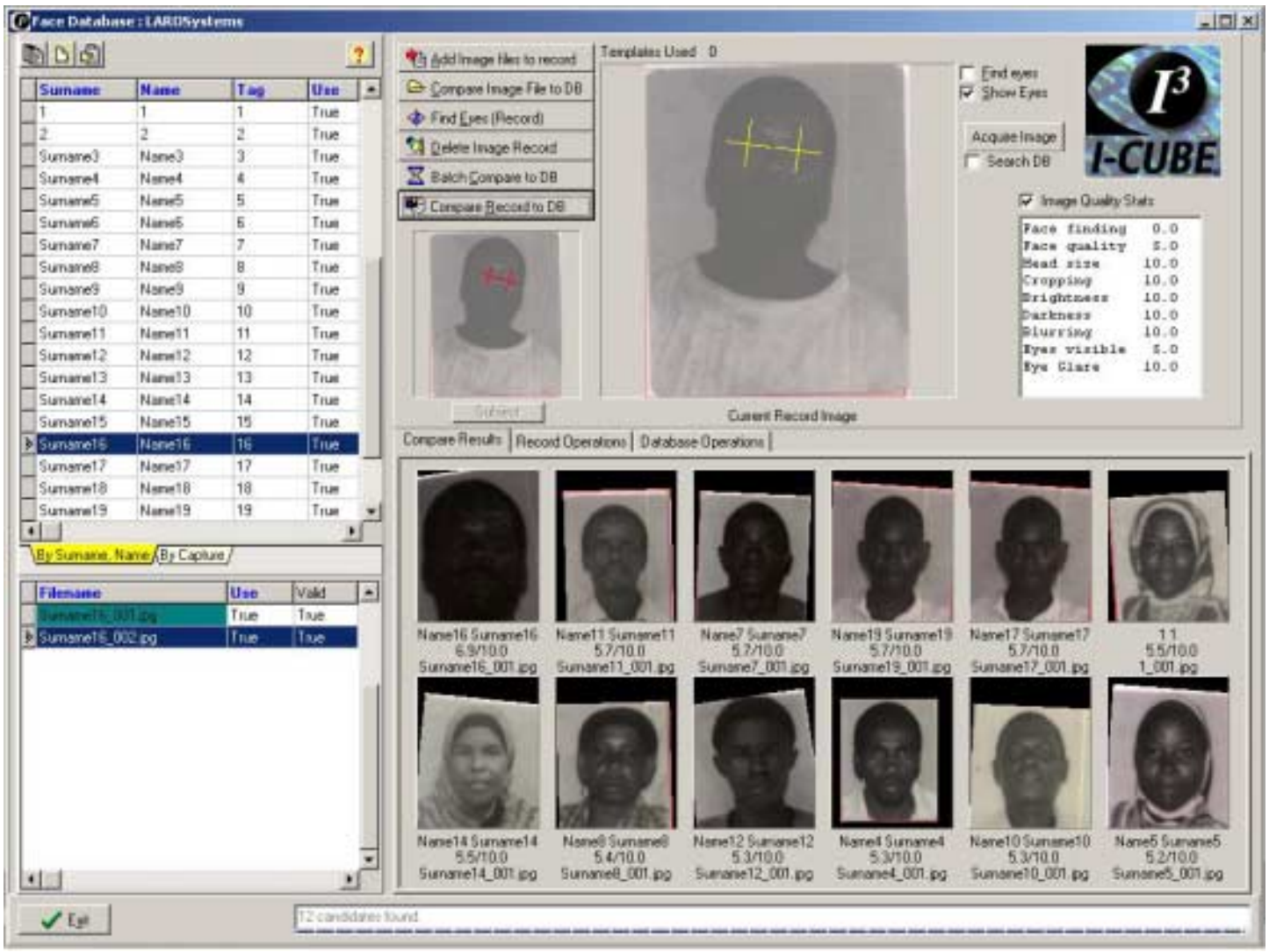
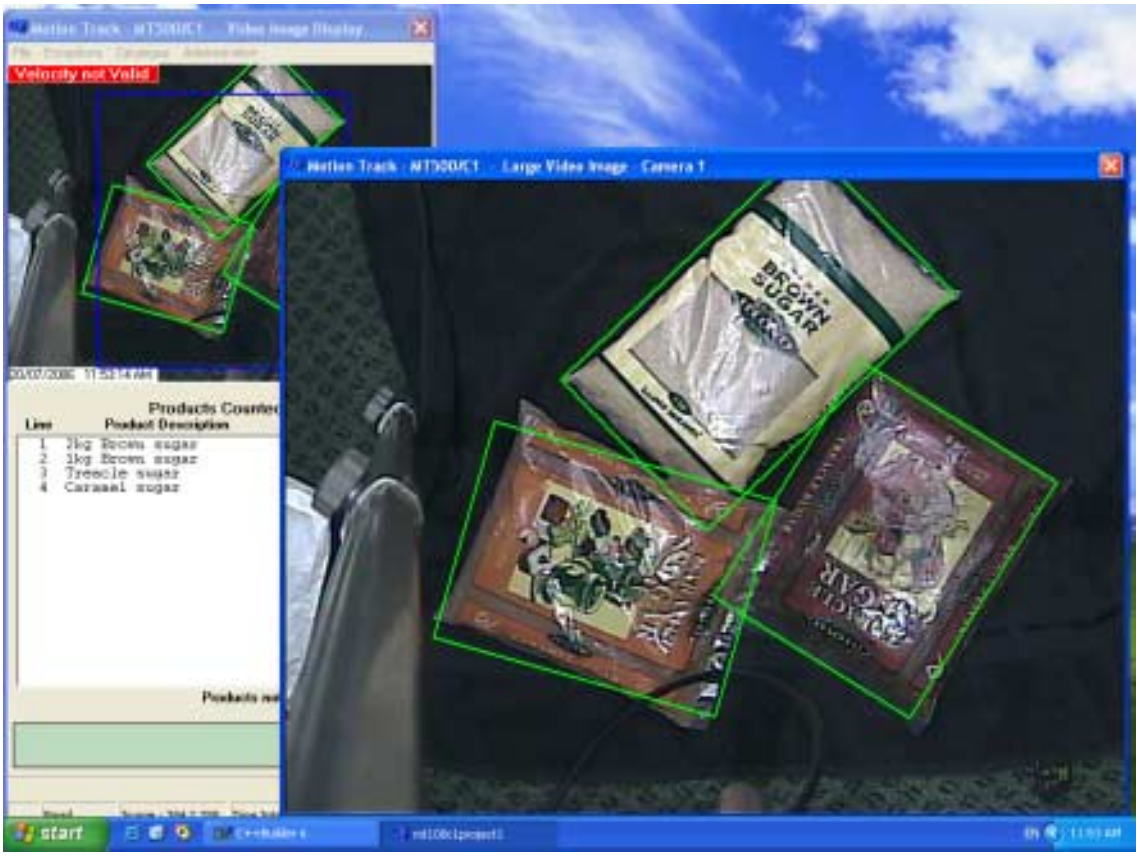
BARRY DUDLEY CURRICULUM VITAE

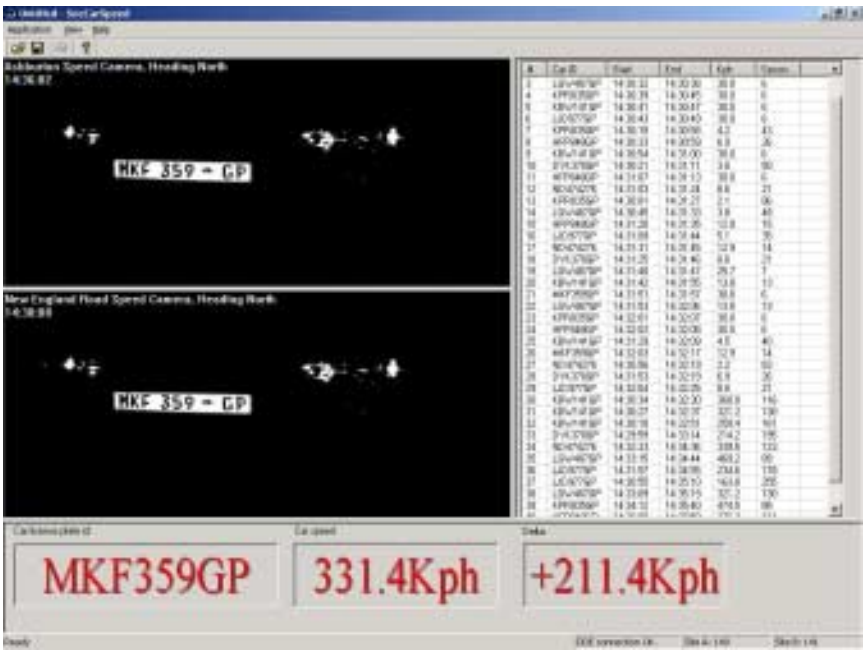
Barry Dudley is currently employed by I-Cube, which he founded in 2003. I-CUBE focuses exclusively on integrated, intelligent imaging, where a camera is connected to a PC and intelligently performs a decision based on information within an image, completely integrated into the existing processes.



Currently the I-CUBE product line consists of both hardware and software in the License Plate Recognition, image analysis (counting and sizing), facial identification and verification areas.



With over 67 sites in South Africa, the I-Cube LPR system is the leading software solution. I-Cube was the first company in Africa to implement real time (sub second), high speed (over 175 KM /H), multi-lane LPR solution in a free flow environment, incorporating average speed determination (on an average 35 000 vehicles a day).



REFERENCE SITES: Record of Similar Projects Completed

The development of LPR started in 1995 and first systems were installed internationally in 1996/7. The first systems were deployed in RSA in 1999 by HTSOL

The years experience in ANPR within SA by ASD is over 15 years.

M4 Durban DEMO to Durban Metro

- Total number of vehicles detected: 1593
- Distance between Point A and B: 165M (theoretical distance with D Link directional antenna is 9 KM)
- Full system (Point A & B) hours in operation: 2
- Number of lanes (1 per site), slow lane

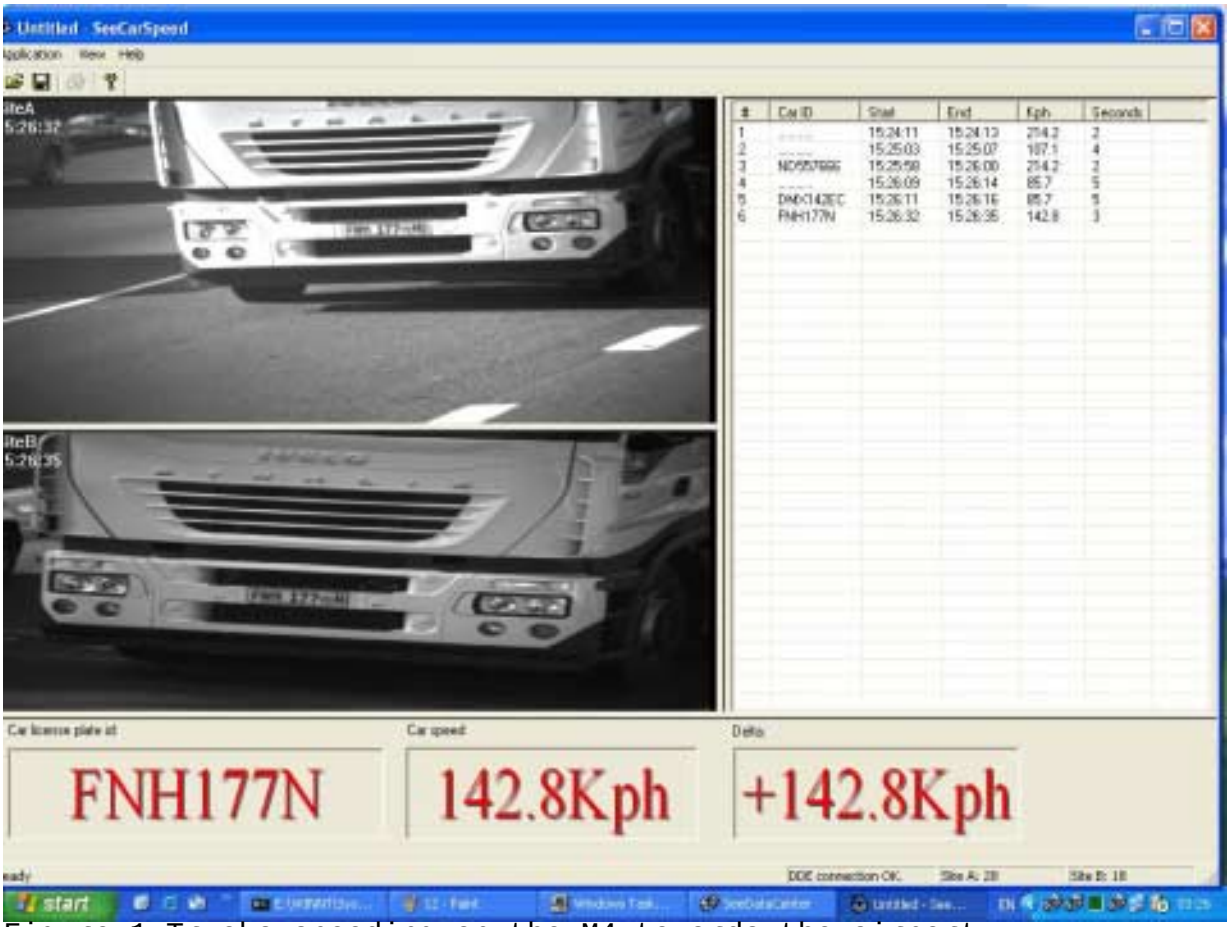


Figure 1 Trucks speeding on the M4 towards the airport

Figure 2 Visitors to Durban who obey the rules of the road

Figure 3 M4 Durban Demo of ASD

Full Name: John Schnell
Company: KwaZulu-Natal Department of Transport
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Web Page: http://www.kzntransport.gov.za

Figure 4 Ashburton on the N3
The 3 month demo went from the Ashburton off ramp (Bridge) on the N3 (above), past Camperdown off ramp (below) to Camperdown N3 (Old Road) bridge.

Figure 5 Camperdown on the N3
The distance between the two points was 13.750 KM

Ashburton

Camperdown

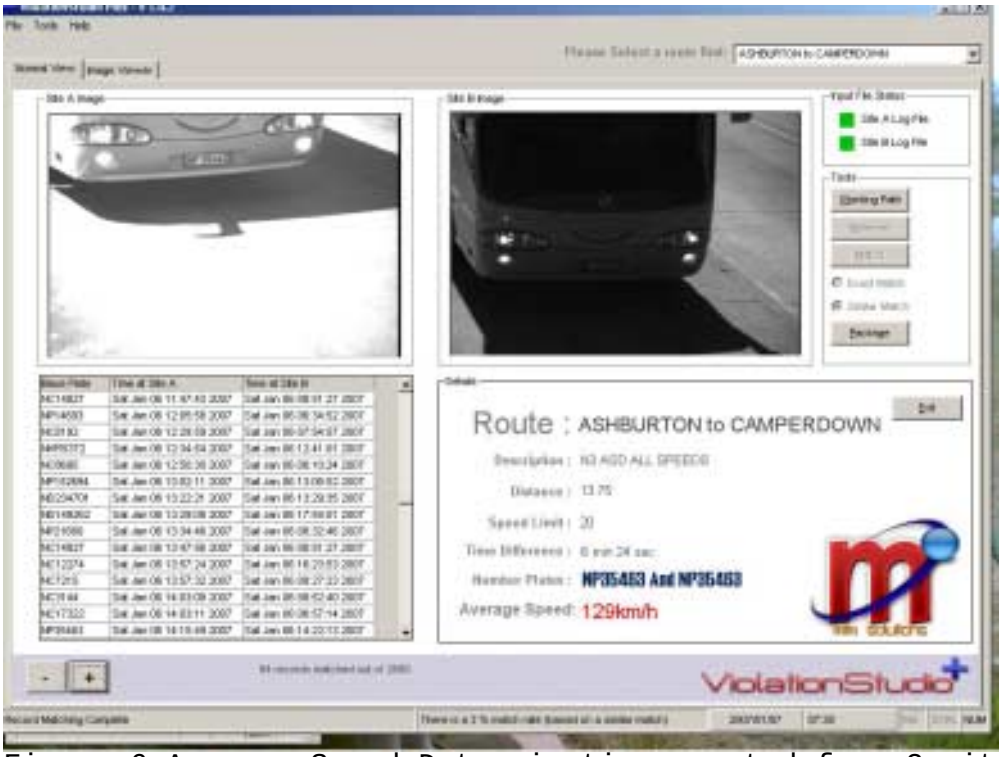
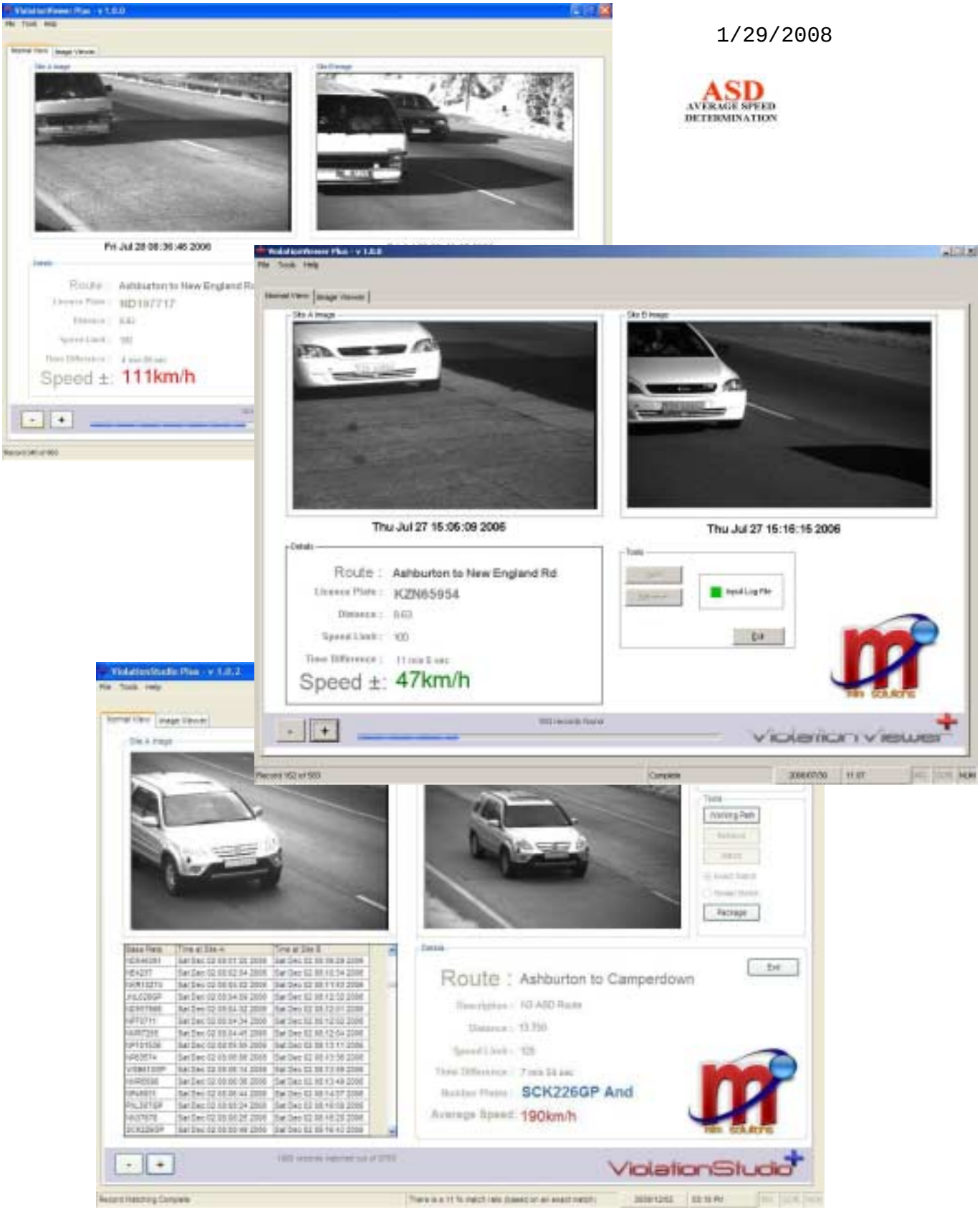


Figure 6 Average Speed Determination created from 2 sites on the N3

1/29/2008

ASD
AVERAGE SPEED DETERMINATION



Above is some data generated from the 1 day test on the N3 over 8 KM.

LPR@I-Cube.co.za www.I-Cube.co.za

REFERENCE SITES:

Record of Projects Completed in SA by I-Cube

Client	Nature of works	value of work for which the SUB-CONTRACTOR was directly responsible (excluding vat)	year completed
ACSA	3 Lane LPR system for Baggage access control and logging at Oliver Tambo	R180 000.00	2007
SPS	Vehicle Monitoring	R375 000.00	2006
Fourier Systems: N4 Toll Rd N3 Toll Rd	LPR Software	R67 000.00 R67 000.00 R67 000.00	2007 2006 2005
John Rupert	Access Control	R175 000.00	2002
SPOORNET HEAD OFFICE	2 Lane LPR system for access control and logging at SPOORNET head office	R220 000.00	2004
AVIS	6 site (multiple lanes per site) LPR for logging vehicles at JHB, DBN and Cape Town Airport's and AVIS service areas.	R1,2 million	2002
Digital Home Integration Services	Access Control & Logging	R75 000.00	2007
HIGHVELD Steel and Vanadium	6 lane Weigh Bridge Monitoring	R180 000.00	2006
FANG	Access Control	R105 000.00	2005
SEE Systems	Vehicle Logging	R125 000.00	2005

This system is installed in the gates of a South African University. It is used for gate control and theft prevention. The license plate of the cars entering is recorded along with the driver face. This data is compared to the information at the exit and the guard can see that the person at the entrance to the University was different than the person driving the

car out. The system also provides statistics and data logging, as well as an on-line surveillance of the gates. After the installation of this system the number of thefts decreased sharply. An actual record of an attempted theft is shown on the right.

The SeeCarTrap system is based on SeeLane recognition system and has special modifications for a roadside mobile system. This system is used for catching cars in cases of warrant of arrest, unpaid fines or taxes and stolen cars. It deals with a database of up to 0.5 million local entries and an unlimited number of remote links. The stand-alone real-time system automatically recognizes the car plate number then searches a database. It sounds an alarm when a car has been detected in the 'black' list, and displays the vehicle and arrest information contained in the record. This revolutionary system simplifies the roadblock operation and thus helps to increase selective enforcement.

The system is also connected to a large outdoor display that shows the car number, the car type, the reason for arrest and the name of the driver. This display can be seen by the police officer down the road. All the officer needs to do is wait for the siren, then stop the car and verify the arrest details, as seen in the film clip below.

The system is portable and installed in minutes by the police officer. It is installed in a battery powered lunch-box PC. It operates day and night on a free-flowing traffic at average speeds of 10-80 KMH. The system contains all the elements of a recognition system: hardware (frame grabber, optional IO card, and a special camera/illumination unit optimized for this application) and software (SeeRoad application and a client application). The application includes a special software trigger option which reduces the need to place a detector on the road, making the system portable and easy to install.

This system is installed in a traffic police

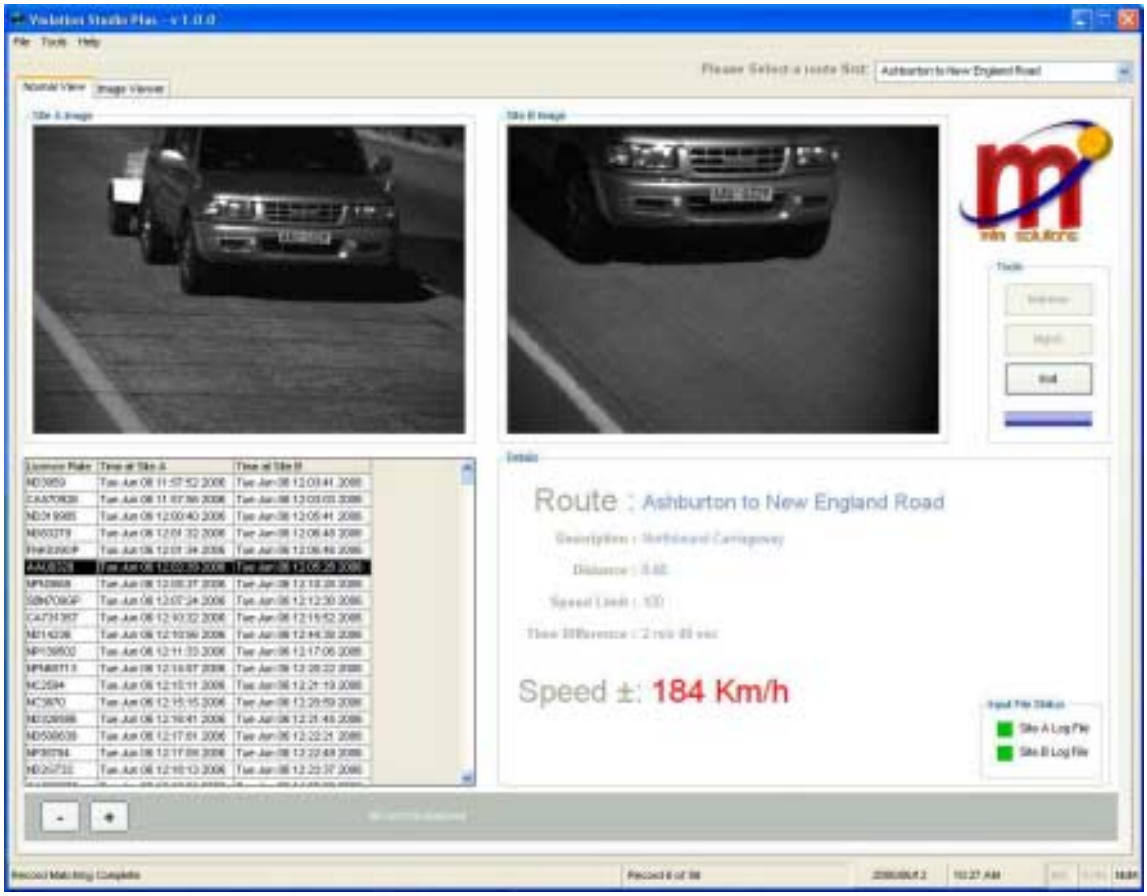
violations processing center in Pretoria, South Africa (in conjunction with Labat Traffic Solutions using the Startrap Intelligence violation data processing system). It is used to automate the process of handling the fine processing (a fast turnaround from film to fine). The application reads both the license plate off the frame - together with violation information.

A sample violation is shown in the following photo. The frame, read from the film, includes the view of the car, the vehicle plate, and the violation information - which includes the date, location and speed, and is attached in the upper-right corner.

The system performs both access-control, parking and traffic-flow management functions. It provides solutions for a congested University entrance and enforces an overall traffic policy in its gates and parking lots.

This system part of a toll road system in South Africa. The license plate is read and used as a key to fetch the vehicle information from the toll database. The information is compared to a swipe card which is used by the driver. This integrated system reduces fraud and increases the toll income.

The toll system is based on a multi-lane (SeeLane) system which reads and verifies the plate data and sends a message to the toll control application. This application uses the recognition information to obtain the vehicle data, which is matched to the swipe card information. The results are displayed to the operator and also sent to the control room for further processing of the frauds, and long-term data logging.



Before I-Cube Barry was with Intervid for over 3 years, a digital imaging solutions company, as development manager. Intervid creates a world where digital images are converted into information and instantly analysed, triggering full scale alerts in accordance with best practice criteria, agreed long before a crisis arises. Intervid's digital visual management systems have revolutionized standards and procedures in surveillance security, safety, change monitoring and production.


Extract from
South African Police Service
Criminal Database

Studying for a MBA (University of Natal, 2003) has increased Barry's understanding of the cycle of business development as viewed from an

imaging aspect, which focuses on the application of digital imaging solutions within specific industries. Barry has utilised his experience in digital video recorders (real time applications), biometrics, (face and iris recognition), license plate recognition and machine vision (image analysis), in creating custom security and process solutions. Barry combines his MBA experience with knowledge of technical solutions to create customised client solutions.

Prior to being head hunted to Intervid Barry worked as an Imaging consultant for 2 years at Integrated Imaging Inc. (I-CUBE), based out of Maryland (near Washington, DC), USA, growing this company to 5 people with a multimillion-dollar turnover. Barry attended the University of Natal, Pietermaritzburg, completing a M.S. thesis (Cum Lauda) in Microbiology (April 1999). Barry has been fortunate to be awarded multiple awards / bursaries & scholarships, some of which are listed below.

Having established I-Cube, Barry is now ready for a new challenge.

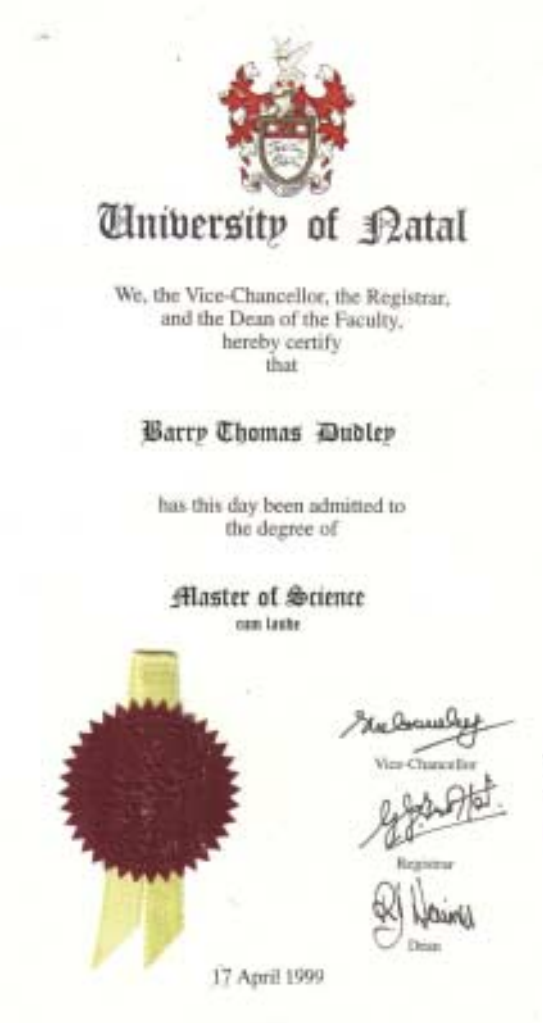
The above image shows the author, verified against the proposed MVG card linked to facial recognition.

Presentations:

Neural networks to enhance safety in local authorities: automatic identification, tracking and alarm at TECHNOLOGY IN LOCAL GOVERNMENT RAISING LEVELS OF SERVICES DELIVERY THROUGH TECHNOLOGY 20-21 JUNE 2006 – MIDRAND

Education:

Barry has completed an MBA at the University of Natal, speciality: IT Information Management & E-Commerce. The MBA dissertation, **Casino Exclusion Technique Exploration - Framework Development,** examines the possible solutions to excluding problem gamblers from SA casinos.



University of Natal

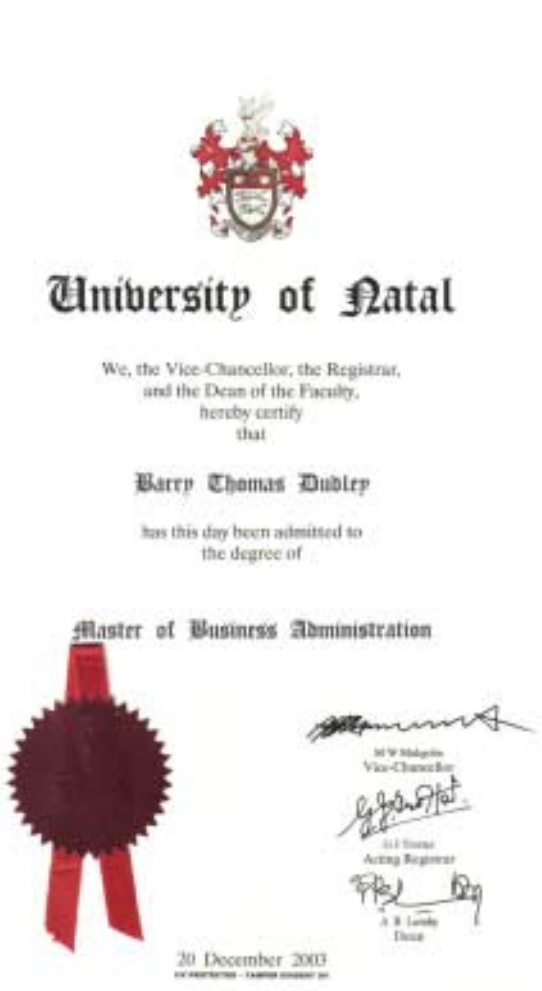
We, the Vice-Chancellor, the Registrar, and the Dean of the Faculty, hereby certify that

Barry Thomas Dudley

has this day been admitted to the degree of

Master of Science

17 April 1999



University of Natal

We, the Vice-Chancellor, the Registrar, and the Dean of the Faculty, hereby certify that

Barry Thomas Dudley

has this day been admitted to the degree of

Master of Business Administration

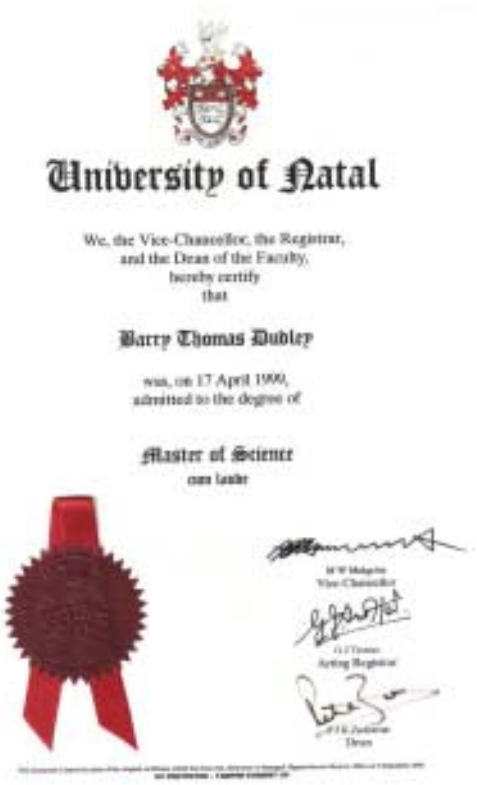
20 December 2003


Universitas Nataliensis

hoc scripto nos, Universitatis Nataliensis Vice-Cancellarius, Registrarius, testamur

BARRY THOMAS DUDLEY

Gradum Scientiae Baccalaurei cum Honoribus


University of Natal

We, the Vice-Chancellor, the Registrar, and the Dean of the Faculty, hereby certify that

Barry Thomas Dudley

was, on 17 April 1999, admitted to the degree of

Master of Science cum laude

University of Natal, Pietermaritzburg, Republic of South Africa – M.S. thesis (Cum Laude) in Microbiology (April 1999). Thesis Title: *"Application of Image Analysis in Microecophysiology Research: Methodology Development."*

AWARDS:

Institute of Waste Management (IWM) 1992 for study in a Masters of Waste Technology (R8000). The award was again achieved in 1993.

Scholarships:

International Centre for Waste Technology (Africa) for MSc study in 1992 and 1993 (R25 000 per year).
Foundation for Research and Development (FRD) for MSc study at PMB university in 1992 and 1993 (R 8000).
University of Natal (Pietermartizburg) (1991) (full tuition and spending money), towards Honours in Waste Technology (Microbiology).

Bursary:

South African Breweries (SAB) towards a degree in microbiology (1988 - 1990) (R50 000).

Publications:

Contributing author to TRAFFIC DIGEST, with a dedicated LPR article.

The Industry Journal for Security and Business Professionals Volume 11 No. 2 Pg 34/35 DIVERSITY OF LICENSE PLATE RECOGNITION

APRIL SECURITY FOCUS (Vol 22, No. 4) Facts, features and benefits of facial recognition

A. Refereed Journals

Invited and Published

B.T. Dudley, C.A. du Plessis and E. Senior. **"Managing leachate in landfills through manipulation of soil cappings: Image analysis studies"**, *Binary - Computers in Microbiology*, Vol 6, 120-127. (1994)

Submitted and Published

B.T. Dudley, A.R. Howgrave-Graham, A.G. Bruton and F.M. Wallis. **"The application of digital image analysis to quantifying and measuring UASB digester granules",** *Biotechnology & Bioengineering*. 42, 279 - 283. (1993)

B. T. Dudley, A. R. Howgrave-Graham, H. Isherwood and E. Senior. "Laboratory-scale UASB digesters (with/without conditioning tank and recycle): efficacy to treat increased hydraulic loads", *Water SA*. 19, 313 - 318. (1993)

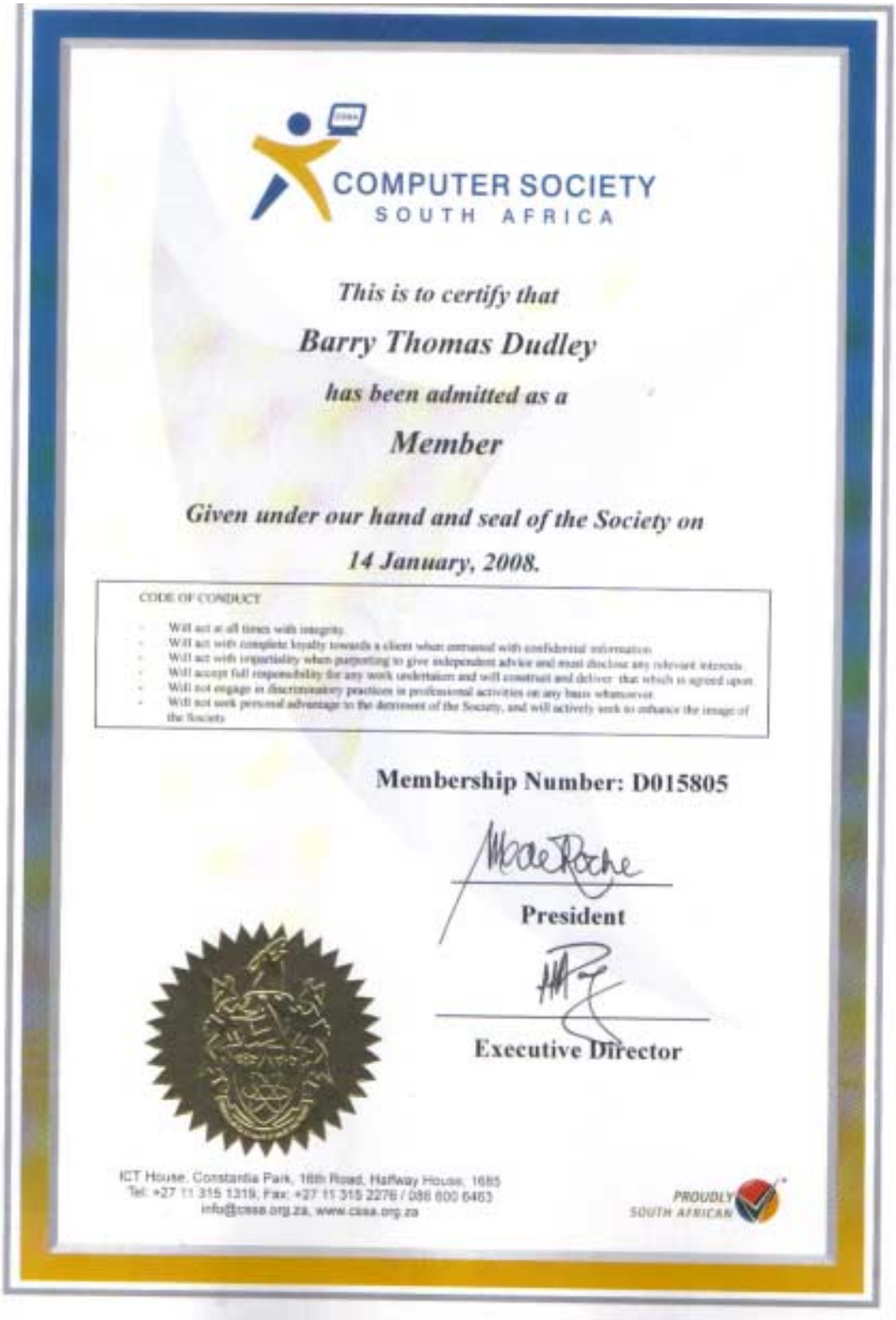
B. Papers Presented at Professional Meetings

Invited and Published

B.T. Dudley, C.A. du Plessis and E. Senior. "Managing leachate in landfills through manipulation of soil cappings: Image analysis studies. Image Analysis of Microbes in Their Habitats". Society for General Microbiology Meeting on Image Analysis at Warwick, United Kingdom, 5 - 7 January 1994.

Submitted and Published

B. T. Dudley, E. Senior, A. G. Bruton and F. M. Wallis. "Image analysis methodology development for use in microecophysiology studies of microbial associations in landfill cover soil". Seventh International Symposium on Anaerobic Digestion, Cape Town, 23 - 27 January. (1994)



COMPUTER SOCIETY
SOUTH AFRICA

This is to certify that

Barry Thomas Dudley

has been admitted as a

Member

Given under our hand and seal of the Society on

14 January, 2008.

CODE OF CONDUCT

- Will act at all times with integrity.
- Will act with complete loyalty towards a client when entrusted with confidential information.
- Will act with impartiality when purporting to give independent advice and must disclose any relevant interests.
- Will accept full responsibility for any work undertaken and will construct and deliver that which is agreed upon.
- Will not engage in discriminatory practices in professional activities on any basis whatsoever.
- Will not seek personal advantage to the detriment of the Society, and will actively seek to enhance the image of the Society.

Membership Number: D015805

President

Executive Director

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