

# Curriculum Vitae of Dr. Surendra Thakur (Abridged CV)

## D. TECH(ICT) M. TECH(ICT)

92 Victoria Road, Hillary, 4094, South Africa

[thakur@dut.ac.za

Tel/fax: +27 (0) 31373 6991 GSM: +27 (0) 83 787 6991]

---

### Personal Details

Surname	Thakur
First Name	Surendra
Date of Birth	01 November 1963
Age	52 Years
Sex	Male
Nationality	South African
Identification Number	6311015164085
Marital Status	Married
Dependants	Two
Work Telephone	+27 (31) 373-6991/6438
Home Address	92 Victoria Rd Hillary, 4094
Home Telephone	+27 (31) 464-6991
Cell	+27 (31) 83 787 6991
Email	<a href="mailto:thakur@dut.ac.za">thakur@dut.ac.za</a> / <a href="mailto:thakur.colin@gmail.com">thakur.colin@gmail.com</a>

---

### Educational Qualifications

#### 1. Tertiary Qualifications:

- **Qualification: D Tech Information Technology (2015)**
  - **Institution:** Durban University of Technology
  - **Thesis Topic:** System Architecture for Secure Mobile Internet Voting
- **Qualification: M Tech Information Technology (2008)**
  - **Institution:** Durban University of Technology
  - **Thesis Topic:** An investigation into the nature and extent of the adoption of RFID in South Africa
- **Qualification: BSc. Honours Computer Science (1992)**
  - **Institution:** University of South Africa (Pretoria)
- **Qualification (Summer School): Postgraduate Summer School courses (1987)**
  - **Institution:** Carnegie-Mellon University Pittsburgh, USA
  - **Credits:** PASCAL Programming (Distinction) & Advanced Data Structures (Distinction)
- **Qualification: BSC. Computer Science (1986)**
  - **Institution:** University of Durban-Westville

---

### Career Profile & Employment Details

#### 1. e-Skills Co-Lab Director (2011-Present)

- **Core functions/Responsibilities:**
  - This Research Hub forms part of a broader national project aimed at e-Skilling the Nation.
  - This Co-Lab excels as a thought leader in e-skills for essential service delivery by:
    - Creating programmes and courses that empower government and society
    - Creating and teaching e-skills programmes that leverage technology and artefact creation (such as Software Development)
  - The Co-Lab delivers high quality Research Outputs through Conference Proceedings and Journal Publications.
  - The Co-Lab holds an artefact for automatic degree authentication which in spite of direct interest by the Deputy Minister of Higher Education has not (yet) got traction.

---

#### 2. Director and Head: Enterprise Development Unit (EDU) at Durban University of Technology (2009: present) (although seconded to e-skills)

- **Core functions/Responsibilities:**
  - This unit is **SELF-FUNDED** and reports to the Deputy Vice Chancellor (Technology Innovation & Partnerships).

- Responsible for the commercialisation of viable technology projects, third stream income generation and the facilitation of Industry Partnerships.
- Develops Quality Management systems to manage SETA accredited Short Courses.
- Preparing proposals, managing budgets and staff.
- Core functions also include: patent registration, technology transfer, short course development, managing research projects, incubation of innovations and SMME development.

---

### **3. Founder, Chairman and Director: InvoTech SEDA Technology Incubator: (2011-present)**

- **Core Functions/ Responsibilities:**

- This is a registered NPO Innovation Incubator which assists innovators to conceptualize ideas, develop prototypes and commercialize models. In the first 18 months of our existence we had 104 projects.
- Funding of about 3m (and 5m from TIA per annum **all of which** goes to clients)

---

### **4. Associate Director: Department Of Information Technology (Durban University Of Technology) August 1997- July 2008**

- **Core Functions/Responsibilities:**

- Introduced the new B-Tech (IT) syllabus upon appointment.
- Led curriculum development and mentored junior staff and students.
- Acted as Head of department for various periods once for 6 months with a staff complement of 60 and a budget of over R30m with over a 1000 computers during that time.

---

### **5. Executive Management Roles:**

- Institution of the Senate, Durban University of Technology
- Higher Education ICT Association (HEICTA) (1998-2009)
- ICASA Complaints and Compliance Committee (CCC) (2007- 2009)
- ICTE Provincial Advisory Committee (2009)

---

## **Research and Academic Work**

### **1. Commissioned Research**

- **IEC Commissioned Researcher (2010-12) “e-voting – the cross national experience.”**

- Commissioned in 2010 to undertake an international cross-border study of electronic voting. This report was delivered in March to the IEC. (Presented to government on 11-12 March 2013)
- This resulted in 6 keynote expert-level conference addresses viz.
  - Software Quality Conference Johannesburg (November, 2010),
  - UNDP Conference in Accra (June, 2011)
  - EISA EMB conference Nairobi (November, 2011)
  - IEEE e-democracy conference in Pretoria (October, 2012),
  - W3W-ZA Conference (November 2012)
  - IEC e-voting Seminar (March, 2013).

- **UNDP Commissioned Research 2012-13**

- International study for electronic voter registration entitled “*The path towards effective solutions: A study on voter registration experiences and technology*”. The UNDP spent USD 1.2 billion over 12 years in this area.

---

### **2. Post-Masters Research**

- Millham, R., Thakur, S. “Social Media and Big Data” in Human Element of Big Data, Taylor and Francis, London, 2016

- Thakur, S. Millham, R., and Tshidzumba, A.N. "e-citizenship: a panacea for citizen driven services? International Conference on Public Participation", Durban International Conference on Public Participation, ICC Durban 18-19 February 2016.
- Thakur, S., E. Adetiba, O. Olugbara and R. Millham" Experimentation Using Short-Term Spectral Features for Secure Mobile Internet Voting Authentication," Mathematical Problems in Engineering Journal, Hindawi Publishers, 2016
- Thakur, S., 2014 "E-Voting: India and the Philippines- A Comparative Analysis for Possible Adaption in Africa, Emerging Issues and Prospects in African E-Government, Sodhi, I.S (ed.), pp.28-55.
- Thakur, S., Olugbara, O.O., Millham, R., Wesso, H.W. and Sharif, M., 2014, October "Transforming voting paradigm—the shift from inline through online to mobile voting." In Adaptive Science & Technology (ICAST), 2014 IEEE 6th International Conference on (pp. 1-7). IEEE. **(Best Paper award)**
- Millham, R., Thakur, S. and Malan, C., 2014, April. Does self-regulating e-learning assist in secondary school preparation for engineering education? In American Society for Engineering Education (ASEE Zone 1), 2014 Zone 1 Conference Paper (pp. 1-5). IEEE.
- Maphephe, J., Balkaran, R. and Thakur, S. 2014. Digital and interactive content production as part of Lesotho strategic development – a brief study on Lesotho working towards national collaboration for updated civil register and voter register in the spirit of improved service delivery, African journal of computing and ICT, (7)4: 85-90, IEEE.
- Maphephe, J.; Balkaran, R. and Thakur, S. 2014. Impact of information and communication technology presence on direct parliament debates and security of the future laws of Mountain Kingdom of Lesotho. Computing, Information Systems, Development Informatics & Allied Research - A Multidisciplinary Journal. 5(3): 29-44.
- Thakur, S and Dávila, R. The path towards effective solutions: A study on voter registration experiences and technology. Commissioned research. UNDP. 2013.
- IEC. 2014. Electronic voting, an enabler or disabler to strengthening electoral democracy? In: Seminar on Electronic Voting and Counting Technologies. Cape Town, South Africa, 12 March 2013, 1-20.
- Thakur, S. and Singh, S. 2012. A study of some e-government activities in South Africa. In: 2012 e-Leadership conference on sustainable e-Government and e-business innovations (E-LEADERSHIP). IEEE, 1-11.
- Thakur S. 2012. Electronic Voting: The Cross -National experience. Commissioned Research. Electoral Commission. Pretoria.
- Thakur, S. and Boateng, R. 2011. E-voting for good governance and a green world, In: Proceedings of the Africa Digital Week. July 25-29 2011. Accra, Ghana: African Institute of Development Informatics and Policy, 55-62.
- Olugbara, O., R. Millham, D. Heukelman, S. Thakur, H. Wesso, and M. Sharif (2014) "Determining e-Skills Interventions to Improve the Effectiveness of Service Delivery by Community Development Workers", E-Skills Conference, Informing Science, Cape Town.
- Millham, R, S Thakur, (2014) "Evaluating the Effectiveness of ELearning and Core Skills Interventions for South African Secondary School Learners", E-Skills Conference, Informing Science, Cape Town.

---

### **3. Post Graduate Supervision (Current)**

#### **• Masters Students**

- Peters, W. Is Internet spawning Digital Narcissism? A case study of KZN Digital Millennials?
- Peters, C. When the Ink runs dry. The future of the print industry in KZN.
- Goldstone, W. Job dissatisfaction, labour turn-over and a lack of motivation at a Durban-based Business Process Outsource Company.
- David, K. The effectiveness of Non-Linear Interactive Information Graphics for online newspapers: A case study.

#### **• PHD Students**

- Maphephe, J. Internet based Voting.
- Naidu, G. Business Improvement Methodologies For Communication In The Services Group Of Information Communication And Technology Companies In Africa.

<b>CATEGORY</b>	<b>Evidence</b>
<b>1. QUALIFICATIONS</b>	
Doctoral	DTech (ICT) DUT 2016
Masters (Not applicable if a candidate has a PhD)	
<b>ACADEMIC LEADERSHIP (UNIVERSITY AND/OR DEPARTMENT MANAGEMENT)</b>	
Leadership in conflict prevention and resolution (1 point per incident)	Resolved most legal matters with service providers pertaining to Centre to Skills Development (CSD) without fear or favour. ICT Merger academic task team
Initiative in staff capacity development and mentoring	Created 14 self-funded jobs in my unit Launched Social Media training for staff. R Rajkumar –Sheriff Ladysmith (2013)– started as a junior clerk. K Behara –senior lecturer MUST (2015) started Projects Administrator N Muzibuko ETPD (2012) started as Intern. P Musoka CEO Fashion Council (2011) started Projects Administrator
Initiative and commitment to promoting student access and success	All my staff started as NRF or Co-Op Interns (some have stayed and move on) MMI projects to increase access (2013-15) Mr. Price Foundation 200 PC pa to 10 schools + training for 5 years. (2008-2011, 2015)
Successful completion of strategic projects and assignments (1 point per assignment/task)	IRPTN eThekweni ICT development 2014-15 IEC Study on e-voting for South Africa UNDP Study on Voter Registration systems
Leadership in curriculum/program development [participation = 3; leadership = 5]	Developed the entire curriculum for BTech (1997) & taught all courses. Initiated, curriculated Business Analysis stream at DUT (2005) and taught
Participation in University Committee/task team structures (including labour and chairing disciplinary and grievance committees (1 point per committee)	Sat on Merger task team (ML and NT), IT Advisory Board, Sat on Cooperative Events committee responsible for ICT use, configuration in conferences.
<b>CATEGORY</b>	<b>Evidence</b>
Excellent student' rating (Lecturer and subject evaluation questionnaire results)[≤ 1 = 5); ≤ 2 = 3	Consistently high. Media acknowledgement by staff. For staff evaluation of my teaching. Refer to HR (M Perumal)
Vision and goals for own teaching practice	"Laugh at me while you learn with me."
Undergraduate, Honours and Masters Programmes (1 point per Programme)	Lectured the BTech ICT (1997-2005) in ICT and Management (2005-2010). Moderate BTech WSU (2010-curret). Guest lectured Masters students via Skype at Ontario University (2016).
Curriculum Development (1 point per Programme) Same as program development?	Developed curriculum for BTech (IT) courses (1997). Business Analysis stream at DUT (2005)
Supervised/Co-Supervised Masters (1 point per Student; completed only)	Na (5 students in process)
Supervised/Co-Supervised Doctoral (3 points per student) As above.	Na 2 students in process (1 with 2 papers output)
Examiner/Assessor: PhD and Masters (1 point per assessment)	2 x MCom at UKZN. 1) TB Mthethwa ( Reg 213572036) 2016 2) LA Bophela (Reg 213571313) 2016
<b>RESEARCH OUTPUTS</b>	<a href="mailto:key">mailto:key</a>
Accredited (3 points per article) Co-Author/Author	1) Thakur S, Aditabe, E, Olugbara, O., R. Millham. Experimentation using Short-term spectral features for SMIV authentication. Hindawi 2015. 2) Olugbara, O., R. Millham, D. Heukelman, S. Thakur, H. Wesso, and M. Sharif "Determining e-Skills Interventions to Improve the Effectiveness

**Dr. Surendra Thakur (Colin)**  
**D. TECH(ICT) M. TECH(ICT)**

	of Service Delivery by Community Development Workers”, E-Skills 2) Conference, Informing Science, Cape Town, 2014. 3) Transforming the Voting S. Thakur, Olugbara, O., R. Millham, et al, Paradigm the shift from inline, to online, to mobile voting.
Not Accredited ( 1 point per article)	1) 25 consecutive articles DigiTalk (2014-15) Circulation +100K 2) Sunday Tribune Making the most of what you have. (17.3. 2013) 3) Daily News Op-ed NFP Voters have various options (28.07.2016) 4) Thakur S and NA Tshidzumba and R Millham-citizenship: a panacea for citizen driven service. Public Participation Conference. 5) Millham, R, S Thakur. “Evaluating the Effectiveness of ELearning and Core Skills Interventions for South African Secondary School Learners”, E-Skills Conference, Informing Science, Cape Town, 2014. 6) Digital and Interactive Content Production as Part of Lesotho Strategic Development- A brief Study on Lesotho Working Towards National Collaboration for Updated Civil Register and Voter Register in the Spirit of Improved Service Delivery (African Journal of Computing & ICT, IEEE, 2014) 7) Impact of ICT on Direct Parliament Debates and Security of the Future Laws of Mountain Kingdom of Lesotho (CISDI Journal, 2014) 8) Effectiveness of Service Delivery by Community Development Workers”, E-Skills Conference, Informing Science, Cape Town, 2014. Ally, M., R Millham, S Thakur, C Malan “Assessing a Self-Regulated E-Learning Environment for Disadvantaged Secondary Students”, ICEE/ICIT Workshop, Cape Town, South Africa, 2013
Conferences (Double Blind Peer Reviewed – 1 Point per Paper) This will limit the type of papers that can be considered.	Thakur S. and Boateng R (Eds). (2011) e-voting for good governance and a green world. Accra, Ghana. 2011 Millham, R., S Thakur, C Malan” Does Self-Regulating E-Learning Assist in Secondary School Preparation for Engineering Education?”, IEEE-sponsored ASEE Conference, April 3-5, Bridgeport, USA, 2014 2) Olugbara, O., R. Millham, D. Heukelman, S. Thakur, H. Wesso, and M. Sharif “Determining e-Skills Interventions to Improve the
Books/Chapters in Books/Editor/Reviewer of Books (1 point per Book or Chapter in Book/ 1 point per Review/Editor of a Book)	Book Chapters (1) Thakur, S (2014) e-Voting India and Philippines: A comparative analysis. (2) R Millham, S Thakur Social Media and Big Data Reviewer 10 country study of e-government activities (R Boateng), Ghana)
Other (artistic/creative outputs, patents etc) (1 point per output)	Provisional patent RFID (2012) Sebenza Job Portal to enable employment IRPTN GoDurbs! software Web Blog

CATEGORY	Evidence
Community Engagement Research	1) Olugbara, O., R. Millham, D. Heukelman, S. Thakur, H. Wesso, and M. Sharif “Determining e-Skills Interventions to Improve the Effectiveness of Service Delivery by Community Development Workers”, E-Skills 2) Conference, Informing Science, Cape Town, 2014. Millham, R, S Thakur. “Evaluating the Effectiveness of ELearning and Core Skills Interventions for South African Secondary School Learners”, E-Skills Conference, Informing Science, Cape Town, 2014.
COMMUNITY ENGAGEMENT	
Participation in community projects	1) MMI teaching. 2012-2015 (prepare school learners for matric exam form grade 11) 2) Red Cap Foundation Project deploy and train teachers (deploy 200 computers pa) (2009-2012) 3) Public lectures on Safe Internet for Parents

**Dr. Surendra Thakur (Colin)**  
**D. TECH(ICT) M. TECH(ICT)**

	<p>4) Computer Society of South Africa/ DUT ICT Project (2005-1009)</p> <ul style="list-style-type: none"> <li>• Collected PC's from industry, repair and donate them to Schools</li> <li>• Delivered 200 PC's to 20 schools in KZN with training and installation between 2008 and 2009.</li> <li>• Undertook a Project to deploy 590 PC's for MEC in Rural KZN (2007)</li> </ul> <p>5) Lego Robotics Projects during 2010 World Cup</p> <ul style="list-style-type: none"> <li>• Got school learners involved in designed Lego Robotics.</li> <li>• Ran a project for 10 schools. This was a success. (2015)</li> </ul> <p>6) MMI teaching. 2012-2015 (prepare school learners for matric exam form grade 11)</p> <ul style="list-style-type: none"> <li>• Momentum supplied the computers and transports and food for the kids (2013-2016). We undertook a programme over three years and trained 90 school learners form grade 11 through to 12 through self-paced e-learning. We worked as volunteers for 35 Saturdays per annum.</li> <li>• Safe Internet for parents: I deliver over 40 times for free to schools and NGO's. (2013-current)</li> </ul>
GRANTS AND AWARDS	
Grants (1 point per award of R250, 000) for grant holder	UNDP \$22,000 Grant for Voter Registration Research (2013). Sebenza Portal (250K) (2012)
Awards/Prizes ( 1 point per award)	<b>Best paper</b> Nigeria ICAST (2014) Transforming the Voting S. Thakur, Olugbara, O., R. Millham, et al, Paradigm the shift from inline, to online, to mobile voting. <b>Best presentation</b> Faculty (2008,2009) Thakur S. RFID in education
Rating: NRF (A=10, B=8, C=5 points for L, P or Y =2)	None
TOTAL	

## References

Professor Ahmed C Bawa Vice Chancellor, Durban University of Technology  
[acbawa@dut.ac.za](mailto:acbawa@dut.ac.za) / [acbawa@gmail.com](mailto:acbawa@gmail.com)  
 Tel 27 (0) 82 608 5897 / 031 373 2427

Ms. Nomonde Mbadi Former Executive Public Relations Officer at DUT and UKZN,  
[nomondembadi@gmail.com](mailto:nomondembadi@gmail.com)

Dr Aaron Tshidzumba Former CEO of NEMISA and Board member of SABC  
[atshidzumba@gmail.com](mailto:atshidzumba@gmail.com) / Tel 27 (0) 83 383 2123

Prof Kobus Van Rooyen (SC) Chairperson- Complaints and Compliance Committee at ICASA  
[kobusvrooyen@telkomsa.net](mailto:kobusvrooyen@telkomsa.net) / 082 854 3436