

UNIVERSITY OF PRETORIA

FORMAT OF CURRICULUM VITAE

The University prefers the following CV format. Specific items can be added to or omitted to reflect Faculty specific and/or individual circumstances, but the given numbering should, as far as possible, be followed to facilitate the evaluation process.

Provision of information about race and gender is optional, but will assist the University to report in terms of current Employment Equity legislation.

1. BIOGRAPHICAL SKETCH

1.1 GENERAL INFORMATION											
Surname	Yadavalli										
First names	Venkata Seshachala Sarma				ID Number		5408155922081				
Citizenship	South African				Title	Prof	Female		Male	X	
Place of birth	India				Date of birth		15 August 1954				
Population group	African		Coloured		Indian	x	White		Other (Please specify)		
Department	Industrial & Systems Engineering				Position		Professor				
Direct Telephone	[27] 12 – 420 2979				Direct Telefax		[27] 12 – 362 5103				
E-mail	Sarma.yadavalli@up.ac.za										
Date of appointment	1 March 2002 (at UP)				Permanent full-time		X	Temporary full-time			

1.2 ACADEMIC QUALIFICATIONS OBTAINED				
Degree/ Diploma	Field of study	Higher education institution	Year	Distinctions
Ph D	Title of the Thesis: Stochastic Analysis of Redundant Repairable Systems	Indian Institute of Technology, Madras	1983	
M Sc	Statistics	Osmania Univeristy, India	1978	First Class with Distinction
B Sc	Mathematics	Andhra University, India	1975	First Class
1.3 WORK EXPERIENCE TO DATE				
Name of employer		Capacity and/or type of work	Period From (mm//yy to mm//yy)	
Indian Institute of Technology, Chennai		Research Scholar/Tutor	09/78 to 12/83	
Bendel State University, Nigeria		Lecturer II	12/83 to 04/85	
Bendel State University, Nigeria		Lecturer I	04/85 to 06/86	
University of the West Indies, Jamaica		Lecturer	07/86 to 04/89	
Jamaican Institute of Management, Jamaica		Part time Lecturer	07/86to 03/89	
National University of Lesotho		Senior Lecturer	04/89 to 03/90	
Centre for Accounting Studies		Part time lecturer	06/89 to 04/90	
University of Transkei, South Africa		Associate Professor	03/91 to 06/92	
University of Transkei, South Africa		Professor & Head	07/92 to 03/94	
University of the North, South Africa		Professor & Head	03/94 to 03/97	
University of South Africa		Professor	04/97 to 02/02	
University of Pretoria, South Africa		Professor	03/02 to 03/09	
University of Pretoria, South Africa		Professor & Acting Head	04/09 to 04/10	
University of Pretoria		Professor & Head	04/10 to present	

2. TEACHING ACTIVITIES

2.1 Courses presented

Course	Level (e.g. second year, Masters)	Self developed (Yes or No)
Operations Research	Fourth Year, Undergraduate	Yes
Reliability Engineering	Post-graduate	Yes
Engineering Statistics	Under-graduate	Yes
Research Project (BCS 780)	Post-graduate	No
Research Project (BPJ 410 & 420)	Under-graduate	No

4. OTHER TEACHING CONTRIBUTIONS

4.1 Membership of national and international bodies

List all the teaching associations or societies to which you belong. Name your involvement, e.g. honorary member, founder member, full member, chairman, president, secretary.

1. **Member, Academic Council; Vel Tech Dr RR & DR SR Technical University**
2. **President: Operations Research Society of South Africa, 2008, 2009**
3. **Vicc-President: Operations Research Society of South Africa ,2007**
4. **Fellow: Royal Statistical Society; Elected in 1994**
5. **Fellow: South African Statistical Association,2012**
6. **Fellow: Industrial Engineering & Operations Management Society; USA; 2019**
7. **Fellow: Southern African Institute of Industrial Engineers**
6. **Elected Member: International Statistical Institute, since 2003**
7. **Life Member, Society for Quality, Reliability and Operations Management ,**
8. **Member: South African Institute of Industrial Engineers, since 2002**
9. **Member: South African Statistical Association, since 1989**
10. **Member: Southern African Institute of Management Scientists**
11. **Listed in 'MARQUIS WHO'S WHO' IN THE WORLD**
12. **Member, Task Team on International Rankings; University of Pretoria**
13. **NRF: Evaluation and Rating Specialist Committee 2021-2024**

4.3 Participation in national and international teaching associations, bodies, committees

List all memberships of associations and bodies, as well as teaching committees (e.g. curriculum and assessment committees, teaching review committees, etc) in which you participate. Name the type and extent of participation.

External reviewer for Department of Statistics, University of Botswana (to review the programs of the Department of Statistics. The reviewer is expected to provide a verbal report to Department, complete a written report submitted to the vice-chancellor, on the standards of their curriculum (whether it meets with international standards)

Research Advisory Panel member: Council of Scientific and Industrial Research, South Africa (Until 2017)

Board Member, Faculty of EBIT, University of Pretoria

Member, Advisory Board, Department of Industrial Engineering, University of Stellenbosch, South Africa

Member, Chairman, Industrial Engineering Programme Review Committee, Durban University of Technology, South Africa.

Member of Board of Trustees, University Pension and Provident Funds, University of Pretoria.

Reviewer for Department of Decision Sciences, University of South Africa. The review panel is expected to provide a report on the programmes offered by the Department of Decision Sciences. The written report was submitted to the Dean of the Economic and Management Science Faculty to look into the international standards of their program. We looked into their Policy and planning, Learners, Human Resource planning, Management and administration, Quality Assurance etc.

Reviewer for the promotion from Reader to Professor in the Department of Industrial Engineering, University of Nigeria, Nsuka, 2012

Reviewer for the promotion from Senior Lecturer to Reader in the Department of Industrial and Production Engineering, University of Ibadan, Nigeria, 2017.

Book Reviewer: Reliability Management Technologies: Problems and Solutions; by A Anand and M Ram; CRC Press – A Taylor & Francis Co.

5. POSTGRADUATE SUPERVISION

5.1 Supervision or co-supervision of students who have completed degrees				
Name of student	Degree¹/Title of dissertation/ thesis and date completed	Supervisor	Co-supervisor(s)	Duration of studies (years)
H P Hines	M Phil,	VSS Yadavalli	-	2 Years
P S Sidrak	M Phil	VSS Yadavalli	-	2 years
S T Mohoto	M Sc	VSS Yadavalli	-	3 years
T S Mashimbye	M Sc	VSS Yadavalli	-	2 Years
J Pauw	M Sc	VSS Yadavalli	F E Steffens	2Years
A K Ngwane	M Sc	VSS Yadavalli	F E Steffens	2 Years
A K Ngwane	PhD	VSS Yadavalli	F E Steffens	2 Years
M Botha	PhD	VSS Yadavalli	-	3 Years
C Hargreaves	PhD	VSS Yadavalli	-	3 years
A Moolman	M Sc	VSS Yadavalli	-	2 Years
G Erasmus	PhD	K Adendorff	VSS Yadavalli	3 Years
C de van Schoor	PhD	VSS Yaddavalli	-	4 Years
M Muller	PhD	VSS Yadavalli	-	3 Years
A Malada	PhD	VSS Yadavalli	-	5 Years
Y Mwanga	PhD	VSS Yadavalli	-	5 Years
K Setlhare	PhD	VSS Yadavalli	-	3 Years
AGV Naidoo	PhD	VSS Yadavalli	-	5 years

¹ Indicate whether Honours, Masters research, Masters coursework with dissertation or Doctorate

F Nailana	M Sc	V S S Yadavalli	J Manamela	1 year
R Makwela	M Sc	M Lesaona	VSS Yadavalli	2 years
A Jelani	M Sc	V S S Yadavalli	-	1 year
J Grobler	M Eng (This thesis received the S2A3 medal)	VSS Yadavalli	Prof Andries Engelbrecht	1 year
O Lebaonden	Ph D	VSS Yadavalli	-	4 years
Simon Nkatle	M Sc	M Lesaona	VSS Yadavalli	3 years
C Marias	M Sc	I Rattoli	VSS Yadavalli	1 year
A J Moolman	Ph D	V S S Yadavalli	-	3 Years
O Adetunji	Ph D	VSS Yadavalli	-	3 years
B Kanyama	M Sc	VSS Yadavalli		1 Year
M A O Ali	M Sc	K Adendorff	VSS Yadavalli	1.5 Years
Estelle van Wyk	M Eng (This thesis received S2A3 Medal)	VSS Yadavalli		1 Year
P M Nienaber	M Eng	P S Kruger	V S S Yadavalli	1.5 Year
Marne de Vries	Ph D	VSS Yadavalli	A van der Merwe	4 Years
J Wentzel	Ph D	VSS Yadavalli	D Krishna Sundar	2 Years
J Hager	M Eng	VSS Yadavalli	R Webber-Yongman	2 Years
Jean-Claude Munyaka Baraka	M Tech	VSS Yadavalli	R Singh	2 years
R Kellerman	M Eng	VSS Yadavalli		1 .5 years
J Grobler	Ph D	VSS Yadavalli	AP Engelbrecht; G Kendall	5 years
TA Naidoo	M Sc	VSS Yadavalli		2 years
Yajna Maharaj	M Eng	VSS Yadavalli	E Willemse	1 year
Shagufta Abbas	Ph D	VSS Yadavalli		3 years
Her Carstens	Ph D	X Xia	VSS Yadavalli	3 years
Andries Botha	Ph D	J Grobler	VSS Yadavalli	4 years
Euodia Vermeulen	M Eng	VSS Yadavalli		1 year
Paul Mokilane	Ph D	P Debba	VSS Yadavalli	3 years
Jean-Claude Munyaka Baraka	Ph D	VSS Yadavalli		4 years
Rafid Al- Rikabi	Ph D	O Adetunji	VSS Yadavalli	6 years
Tshinangi Kapyia	M Sc	O Adetunji	VSS Yadavalli	1 year

5.2 Current post-graduate students					
Name of student	Degree²enrolled for and date of first registration	Project title	Supervisor	Co-supervisor(s)	Year of registration
Tshinangi Kapya	Ph D	Lot sizing models in inventory management	O Adetunji	VSS Yadavalli	2022
Thando Nkosi	M Eng	Inventory Management	VSS Yadavalli		2022
Bongiwe Mbhamali	M Sc	System failure model and down-time causative factors identification, control and reliability analysis	M Ayomoh	VSS Yadavalli	2022
Bhekifa Radebe	Ph D	Optimizing big data analytics to improve information flow, exchange and availability across the supply chain value network to reduce warehousing and logistic costs in the FMCG industry	M Ayomoh	VSS Yadavalli	2022

6. RESEARCH FUNDING

6.1 Obtaining research funds (Optional) Please see section 6.1				
Origin of research funds (e.g. contract research, THRIP, international funding organisations, other(s))	Title of research project or programme	Duration	Money allocated (R) (Optional - exact amounts not required)	
NRF(Team leader: VSS Yadavalli, Other members: F E Steffens, A K Ngwane)	Secondary data analysis, Poverty and income inequality in South Africa	2000-2003	R40 000	
LG Electronics Pty Ltd. (Project leader: Prof Pieter van Rooyen, Members: VSS Yadavalli and Vladamir Katkovnik	Probability distribution of Nakagami fading of Mobile communication systems	2000	R20 000	

² Indicate whether Honours, Masters research, Masters coursework with dissertation or Doctorate

NRF(Team leader: Prof T Krezenski; Other members: VSS Yadavalli, Sergai Berezner)	Priority queueing systems (under Competitive Industry Programme)	1995	R30 000
NRF NHBC: Team Leader: VSS Yadavalli; member: O. Adetunji)	Incentive funding for rated researchers Assessing the service levels at NHBC	2009 2009	R40 000 R275 000
NRF project: Team Leader (VSS Yadavalli) Member: (Dr O Adetunji)	NRF Resource Allocation Modelling (RAM)	2017	R400 000

7. RESEARCH OUTPUTS

7.1 Publications in peer-reviewed or refereed journals

Provide full details of each publication, including full titles, names of all the authors, journals, dates, page numbers etc.

1. R Subramanian and **Yadavalli V S Sarma**; A standby system with 'dead time' for the repair facility; **IEEE Transactions on Reliability**; Vol.R-30, No.5,, p498, 1981
2. R Subramanian and **Yadavalli V S Sarma**; A complex two-unit parallel system, **Microelectronics and Reliability**, Vol.21, No.2, pp273-275,1981
3. R Subramanian, R Natarajan and **Yadavalli V S Sarma**; A redundant system with non-instantaneous switchover and 'preparation time' for the repair facility; **Microelectronics and Reliability**, Vol.21m No.4, pp593-596, 1981
4. R Natarajan and **Yadavalli V S Sarma**; An intermittently used n-unit complex system; **Microelectronics and Reliability**, Vol.22, No.3, pp441-444,1982
5. R Subramanian, R Natarajan and **Yadavalli V S Sarma**; Correlated alternating renewal process and their applications in the study of 2-unit redundant systems; **Journal of Mathematical and Physical Sciences**; Vol.17,No,2,pp157-168,1983
6. **Yadavalli V S Sarma** and M Parvez; A complex three unit system; **Microelectronics and Reliability**; Vol.24, No4, p661-662, 1984
7. R Subramanian, R Natarajan, **Yadavalli V S Sarma**; Reliability analysis of a standby system with varying repair rate; **Journal of Mathematical and Physical Sciences**; vol.18(S), ppS127-S137,1984
8. R Subramanian and **Yadavalli V S Sarma**; Stochastic model of multiple unit system; **Microelectronics and Reliability**; Vol.27, No.2, pp351-359
9. **Yadavalli V S Sarma**; Two-unit systems with non-instantaneous switchover and imperfect switch; **Microelectronics and Reliability**; Vol.27, No.2, pp237-247, 1987
10. **Yadavalli V S Sarma** and H P Hines; Analysis of two-unit standby system with switch failure; **International Journal of Systems Science**; Vol.19, No.12, pp2619-2624, 1988

11. Yadavalli V S Sarma; A G/O/G system with slow switch; ***Stochastic Analysis and Applications***; Vol.7, No.1, pp117-124, 1989
12. Yadavalli V S Sarma and R P Jaju; Probabilistic analysis of a two-unit system with 'start-up process time' and imperfect switch; ***Microelectronics and Reliability***; Vol.30, No.3, pp537-543; 1990
13. M P Sastry, C Umasankaram and Yadavalli VS Sarma; A new two server priority queuing system with reservation; ***Advances in Modelling and Simulation***; Vol.21, No.1, pp43-56, 1990.
14. Yadavalli V S Sarma and H P Hines; Joint distribution of uptime and disappointment time for an intermittently used parallel system; ***International Journal of Systems Science***; Vol.21, No.12, pp1189-1192; 1990
15. Yadavalli V S Sarma; A G/M/M system with M/M switch and orientation time for the repair facility; ***Microelectronics and Reliability***; Vol.32, No.12, pp1663-1666, 1992.
16. Yadavalli V S Sarma; General Measures of a two-unit system; ***Microelectronics and Reliability***; Vol. 32, pp1189-1192; 1994.
17. Yadavalli V S Sarma and C Umasankar; Simulation study of a two-unit priority queuing system; ***Microelectronics and Reliability***; Vol.35, No.5, pp789-796, 1995
18. N Singh and V S S Yadavalli; Diffusion approximations to the dependability of a transport system; ***Microelectronics and Reliability***; Vol.36, No.12, pp1495-1499, 1995
19. N Singh and V S S Yadavalli; Determination of reliability density function when the failure rate is a random variable; ***Microelectronics and Reliability***; Vol.35, No.4, pp699-701, 1995
20. N Singh and V S S Yadavalli; Distribution of order statistics with varying number of components in reliability systems; ***Microelectronics and Reliability***; Vol.36, No.5, pp581-587, 1996
21. V S S Yadavalli and N Singh; Spectral analysis of aggregates and products of time series construed of failure rates; ***Stochastic Analysis and Applications***; Vol.15, No.4, pp629-641, 1997
22. V S S Yadavalli and N Singh; Markovian representation of bilinear time series model and maximum likelihood estimation of the parameters; ***Stochastic Analysis and Applications***; Vol. 18, No.2, pp309-321, 2000
23. L Yadavalli and V S S Yadavalli; Productivity, Sectoral Growth and Convergence in South Africa – A Statistical analysis; ***Management Dynamics***; Vol.9, No.2, pp61-91, 2000
24. L Yadavalli and V S S Yadavalli; A study of convergence in the World Economy; 1960-97; ***Studies for Economics and Econometrics***; Vol.24, No.2, pp53-65, 2000
25. A K Ngwane, V S S Yadavalli and F E Steffens; Poverty in South Africa in 1995 – a totally fuzzy and relative approach; ***Studies for Economics and Econometrics***; Vol.25, No.1, pp76-85, 2000

26. A K Ngwane, **V S S Yadavalli** and F E Steffens; Poverty in South Africa – a statistical analysis; **Development Southern Africa**; Vol.18, No.2, pp201-215, 2001.
27. A K Ngwane, **V S S Yadavalli** and F E Steffens; Income inequality in South Africa – a statistical analysis; **Studies for Economics and Econometrics**; Vol.25, No.1, pp63-75; 2001
28. P J Mostert, A Bekker and **V S S Yadavalli**; Bayesian estimation of the stationary rate of disappointments for a model of a two-unit intermittently used system; **Pakistan Journal of Statistics**; Vol.17, No.2, pp117-125,2001
29. **V S S Yadavalli** and M Botha; Stochastic analysis of a two unit system with vacation for the repair facility after m repairs; **ORION**; Vol.16, No.2, pp139-148,2001
30. **V S S Yadavalli**, C Hargreaves, R Natarajan and A Hemamalini; Stochastic model of a two-product inventory system with product interaction; **Management Dynamics**; Vol.10, No.3, pp81-91,2001
31. **V S S Yadavalli**, P J Mostert, A Bekker and M Botha; Bayesian highest posterior density intervals for availability of a system with 'rest period' for the repair facility; **South African Journal of Industrial Engineering**; Vol.12, No.2, pp17-2, 2001
32. S Vijendranath, S R kambaran, O A Towobola, P Mohanlal and **VSS Yadavalli**; Factors associated with low birth weight babies in Pietersburg – Mankweng Hospital complex in the Northern Province; **The Southern African Journal of Epidemiology & Infection**; Vol.16, No.2,3; pp82-86, 2001
33. **V S S Yadavalli** and M Botha; Joint forward recurrence times and their applications to intermittently used two-unit parallel systems; **Electronic Modelling**; Vol.23, No.2, pp54-63; 2001
34. **V S S Yadavalli** and R Natarajan; A semi-Markov model of a manpower system; **Stochastic Analysis and Applications**; Vol.19, No.6, pp1077-1086, 2001
35. A K Ngwane, **V S S Yadavalli**, F E Steffens; Poverty in South Africa – a statistical analysis; **Development Southern Africa**; Vol.18, No.2, pp201-206,2001
36. **V S S Yadavalli**; Stochastic model of a complex system consisting of generators, each with main auxiliary switchboards; **International Journal of Management and Systems**; Vol.17, No.3, pp231-242,2001
37. **V S S Yadavalli**, VV Venkataramana and C Umasankar;Constrained assignment problem: Lexi search approach; **International Journal of Management and Systems**; Vol.17, No.2, pp197-204, 2001
38. **V S S Yadavalli**, N Singh and D Tampubalan; Time series modeling to Kobe-Osaka earth quake recordings; **International Journal of Mathematics and Mathematical Sciences**; Vol. 29, No.8, pp467-479, 2002.
39. **V S S Yadavalli**, P Chandrasekhar, A Bekker and M Botha; Confidence limits for two models of an intermittently used system; **Statistical Theory & Applications**; Vol.1, No.3; pp243-253,2002

40. **V S S Yadavalli**, N Singh and M S Peries; A note on the modeling and analysis of vector ARMA processes with non-stationary innovations; **Mathematical & Computer Modelling**; Vol.36, pp1409-1424, 2002
41. P Chandrasekhar, R Natarajan and **V S S Yadavalli**; Confidence limits for the availability of a complex system with varying repair rate; **Journal of Applied Statistical Science**; Vol.11, No.1, pp27-32
42. **V S S Yadavalli**, and R Natarajan Training dependent promotions and wastages; **SA Journal of Industrial Psychology**; Vol.28, No.2, pp37-45, 2002
43. **V S S Yadavalli**, R Natarajan and S Udayabaskaran; Time dependent behaviour of stochastic models of manpower system – Impact of pressure on promotion; **Stochastic Analysis and Applications**; Vol.20, No.4, pp863-882, 2002
44. **V S S Yadavalli**, A Bekker, P J Mostert and M Botha; Computation of posterior distribution in Bayesian analysis – application in an intermittently used reliability system **South African Journal of Science and Technology**; Vol.21, No.3, pp7-32, 2002,
(Berekening van a posteriori-verdeling in Bayes-analise; toepassing in'n betroubaarheidstelsel wat afwisselend gebruik word, **Die Suid-Afrikaanse Tyskrievir Naatuurwetenskap en Tegnologie**, Vol.21, No.3, pp7-32, 2002).
45. **V S S Yadavalli** and M Botha; Asymptotic confidence limits for the stationary rate of Disappointments of intermittently used systems; **Indian Journal of Mathematics**; Vol.44, No.2, pp243-253, 2002
46. **V S S Yadavalli**, M Botha and A Bekker; Confidence limits for the steady state Availability of a system with 'rest period' for the repair facility; **Electronic Modeling**; Vol.24, No.5, pp99-103, 2002
47. A K Ngwane, **V S S Yadavalli** and F E Steffens; Poverty: deprivations in terms of basic Needs; **Development Southern Africa**; Vol.19, No.4, pp545-560, 2002
48. **V S S Yadavalli**, R Natarajan and S Udayabaskaran; Optimal training policy for Promotion – stochastic models of manpower systems; **South African Journal of Industrial Engineering**; Vol.13, No.1, pp13-24, 2002
49. **V S S Yadavalli**, M Botha and A Bekker; Asymptotic confidence limits for the steady State availability of a two-unit parallel system with 'preparation time' for the repair facility; **Asia-Pacific Journal of Operational Research**; Vol.19, pp249-256, 2002
50. **VSS Yadavalli**, N Singh and H Boraine; Distribution-free approach to the evaluation of reliability of complex systems; **ORiON**, Vol.18, No.1/2, pp59-74.
51. A K Ngwane, **VSS Yadavalli** and F E Steffens; Poverty in South Africa; Statistical Inference for decomposable poverty measures; **Development Southern Africa**; Vol.20, No.2, pp283-291, 2003
52. **V S S Yadavalli**, S J Claasen and N Singh; Control charts for stationary vector ARMA Processes; **SA Journal of Industrial Engineering**; Vol.14, No.1, pp27-38, 2003
53. **V S S Yadavalli** and C Hargreaves; A two-product inventory system with product Interaction; **SA Journal of Industrial Engineering**; Vol.14, No.1, pp17-26, 2003.

54. **V S S Yadavalli** and J W Joubert; A two-product single period manufacturing and supply systems; Management **Dynamics**; Vol.12, No.2, pp34-39, 2003
55. P J Mostert, **VSS Yadavalli** and A Bekker; A two-unit intermittently used cold standby System from a Bayesian view point assuming a Dirichlet Prior; **Pakistan Journal of Statistics** Vol.20, No.2, 2004
56. **V S S Yadavalli**, P Chandrasekhar and R Natarajan; A Study on a two unit standby system with Erlangian repair time; **Asia-Pacific Journal of Operational Research**; Vol.21, No.3, pp271-277, 2004
57. **V S S Yadavalli**, C de W van Schoor, J J Strasheim and S Udayabaskaran; A single product perishing inventory model with demand interaction; **ORION**, Vol.20, No.2, pp109-124, 2004
58. **V S S Yadavalli**, K Adendorff, G Erasmus, P Chandrasekhar and S P Deepa; Confidence limits for expected waiting time of two queuing models; **ORION**; Vol.20, No.1, pp1-6, 2004
59. **V S S Yadavalli**, S J Claasen and J W Joubert; Interval estimation of the availability of a two-unit standby system with non-instantaneous switchover and 'dead time'; **Pakistan Journal of Statistics**; Vol.20, No.1, pp115-122, 2004
60. P J Mostert, A Bekker and **V S S Yadavalli**; A two-unit intermittently used cold standby system from a Bayesian view point assuming a Dirchelet Prior; **Pakistan Journal of Statistics**; Vol.20, No.2, pp223-229, 2004
61. P K Kapur, O Shatnawi and **V S S Yadavalli**; A software fault classification model; **South African Computer Journal**; Vol.2, No.3, pp1-9, 2004
62. **V S S Yadavalli**, M Jeeva, R Rajagopal and V Charles; A application of stochastic programming with Weibull distribution-cluster based optimum allocation of recruitment in manpower planning; **Stochastic Analysis and Applications**; Vol.22, No.3, pp801-812, 2004
63. **V S S Yadavalli**, S J Claasen, S Udayabaskaran and S Geetha; An intermittently used system with preparation time for the repair facility; **International Journal of Reliability, Quality and Safety Engineering**; Vol.11, No.4, pp379-386, 2004
64. **V S S Yadavalli**, M Jeeva, R Rajagopal, M L William; Expected time for attainment threshold level: A shock model approach; **Economic Quality Control**; Vol.19, No.1, pp97-105, 2004
65. **V S S Yadavalli**, N Anbazhagan and G Arivarignan; A two commodity stochastic inventory system with lost sales; **Stochastic Analysis and Applications**; Vol.22, No.2, pp479-497, 2004
66. **V S S Yadavalli** and A Bekker; Stochastic model of an intermittently used system with non-perpetual vigil: its estimation study; **Stochastic Analysis and Applications** , Vol.22, No.3, pp813-825, 2004
67. **V S S Yadavalli** and A Bekker; Stochastic model for common cause failures and human error; **SA Journal of Industrial Engineering**; Vol.16, No.1, pp41-53, 2005

68. **V S S Yadavalli**, A Bekker and J Pauw; Bayesian study of a two-component system with common-cause shock failures; ***Asia-Pacific Journal of Operational Research***; Vol.22, No.1, pp105-119, 2005
69. **V S S Yadavalli**, R Natarajan, P Chandrasekhar and A Malada; A study of a two-unit parallel system with Erlangian repair time; ***Bulletin of the Allahabad Mathematical Society***; Vol.20, pp25-30,2005
70. **V S S Yadavalli**, M Jeeva, R Rajagopalan, and M L William; A bivariate optimal recruitment policy in manpower planning; ***Bulletin of the Allahabad Mathematical Society***; Vol.20, pp25-34, 2005
71. **V S S Yadavalli** and M A E Muller; A stochastic model for an urea decomposition system; ***ORION***; Vol.21, No.2, pp139-147, 2005
72. **V S S Yadavalli**, P Chandrasekhar, R Natarajan and A Malada; An n unit system operating in a random environment; ***OPSEARCH***; Vol.42, No.3, pp280-287, 2005
73. A G V Naidoo, **V S S Yadavalli** and N A S Crowther; A multi-dimensional measure of poverty using the totally fuzzy and relative approach; ***Studies for Economics and Econometrics***; Vol.29, No.3, pp67-80, 2005
74. **V S S Yadavalli**, C de W van Schoor and S Udayabaskaran; A substitutable two-product inventory system with joint-ordering policy and common demand; ***Applied Mathematics and Computation***; Vol.172, No.2, pp1257-1271, 2006
75. **V S S Yadavalli**, R Natarajan and P Chandrasekhar; Confidence limits for the expected waiting time of M/M/c/ ∞ and M/M/c/N queuing models; ***Pakistan Journal of Statistics***; Vol.22, No.2, pp171-178, 2006
76. P K Kapur, A Gupta, O Shatnawi and **V S S Yadavalli**; Testing effort control using flexible software reliability growth model with change point; ***International Journal of Performability Engineering***; Vol.2, No.3, pp245-262, 2006.
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7 . 3 Published full-length conference papers/keynote addresses

Provide full details of each publication, including full titles, names of all the authors, journals, Dates, page numbers etc.

46. **VSS Yadavalli**; *Stochastic analysis of a three unit series parallel system*; *International conference on Industrial Engineering and Operations Management*; Bangkok, Thailand, 2019
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 - 31 VSS Yadavalli, S Abbas, and J W Joubert; *Maintenance analysis of a system with varying repair rate and vacation period for the repair facility; World Congress on Engineering Asset Management, 2014*
 - 30 J Grobler, A P Engelbrecht, G Kendall, VSS Yadavalli, *Heuristic space diversity management in a meta-hyper-heuristic framework; Proceedings, IEEE Congress on Evolutionary Computation, 2014*
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 - 28 VSS Yadavalli and Estelle van Wyk; *Two unit warm standby system with 'dead time' for the repair facility'; International conference on Mechanical and Industrial Engineering; Singapore, February 2012.*
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12. P Chandrasekhar, R Natarajan and VSS Yadavalli; *Statistical Analysis for a tandem queue with Blocking; Proceedings of the conference on `Management Science and Practice; (MSP 2007); India; 2007*
11. VSS Yadavalli and J Grobler; *Future trends in Supply Chain management; Proceedings of the conference on `Management Science and Practice; (MSP 2007); 2007*
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9. P K Kapur, P C Jha and V S S Yadavalli; *Allocation problem in a modular software using logarithmic poisson model with testing effort; Proceedings of the COMPUTERS AND INDUSTRIAL ENGINEERING (CIE 37); Egypt; 2007*
8. V S S Yadavalli, M A Shahul Hameed, L Pratabhan and K Thaga; *Quasi stationary distribution and its application; Proceedings of the International conference on QUALITY, RELIABILITY AND INFORMATION TECHNOLOGY; McMillan Advanced Research series; pp179-190, 2006*
7. P K Kapur, K Yadav, O Singh and V S S Yadavalli; *Testing domain dependent software reliability Growth model; Proceedings of the International conference on QUALITY, RELIABILITY AND INFOTECHNOLOGY; McMillan Advanced Research series; pp284-294, 2006*
6. P K Kapur, S Anand, V S S Yadavalli and F E Beichelt; *A generalized software growth model using SDE; Proceedings of the International conference on QUALITY, RELIABILITY AND INFOTECHNOLOGY; McMillan Advanced Research Series; pp451-461, 2006*
5. V S S Yadavalli, P Chandrasekhar and B Chandrasekhar; *Statistical inference for a tandem queue with dependent structure for service times; Proceedings of the IASTED international conference on Modelling, Simulation and Optimization (peer reviewed by two independent referees) ; ISBN 0-88896-618-X; Sept 11-13, Botswana, pp233-238, 2006*
4. V S S Yadavalli, K Setlhare and M Jeeva; *Modelling of an intermittently busy manpower system; Proceedings the IASTED conference on Modelling, Simulation and Optimization (peer Reviewed by two Independent referees) ISBN: 088896-618-X, Sept 11-13, Botswana, pp123-127, 2006*
3. V S S Yadavalli, K Setlhare and N Forchheh; *Stochastic structures of graded size in Manpower planning systems; Proceedings of the IASTED conference on Modelling, Simulation and Optimization (peer reviewed by two independent referees) ISBN 0-88896-618-X, Sept 11-13, Botswana, pp128-132.*
2. V S S Yadavalli, K Adendorff, G B Erasmus and V Yegnanarayanan; *The role of mathematics, Statistics and Operations Research in Industry, Proceedings of UICEE Annual conference on Engineering Education; (peer reviewed) ISBN 07326 2275 1; Feb. 7-11, 2005 Pegasus Hotel, Kingston Jamaica.*
1. Yadavalli V S Sarma and H P Hines; *Reliability analysis of a complex system using Boolean*

function technique; Proceedings of the conference on Stochastic Processes and Applications; SPRINGER-VERLAG; held at Bombay, India. pp267-275, 1990

7.4 Non-refereed publications or popular articles

Provide full details of each publication, including full titles, names of all the authors, journals, dates, page numbers etc.

- 1. V S S Yadavalli, K Adendorff, G Erasmus and Y Narayanan; How to get rid of congestion that frustrates us every day? Appeared in QUEST magazine*
- 2. H Ittmann and VSS Yadavalli; The Operations Research Society of South Africa; Wiley Encyclopedia of Operations Research and Management Science.(INFORMS)*
- 3. Determining the maximum resource utilization for optimal system profit; INNOVATE 5, 2010, University of Pretoria (with O Adetunji)*

8. OTHER SCHOLARLY RESEARCH-BASED CONTRIBUTIONS

8.1 Participation in conferences, workshops and short courses - specify type of contribution

Provide full details of participation in national and international conferences etc

8.1.1 National

Several research papers presented at different national conferences

8.1.2 International

Several research papers were presented at the various international conferences. Some of them have been refereed and subsequently published.

8.2 Teamwork and collaboration with others:

Other researchers (national and international)

1. *Team Leader for the project entitled “ Secondary Data analysis”, Funded by NRF. The other team members include Prof F E Steffens and Dr A K Ngwane.*
2. *Member of the team for the research project “Probability distribution of Nakagami fading of Mobile communication systems”. Project leader was Prof P van Rooyan (University of Pretoia). Prof V Katkovnik and myself are the other members of the team. Funding was given by L G Electronics Pty Ltd.*
3. *Team member for project entitled “Priority Queueing Systems”, Funded by NRF. The team leader was Prof T Krezenski (University of Stellenbosch) and S Berezner (University of Natal, Durban). This funding was under the Competitive Industry Program of NRF.*

8.3 Membership in national and international bodies

List all the scientific associations or societies to which you belong. Name your involvement, e.g. honorary member, founder member, full member, chairman, president, secretary

1. *Member, Southern African Institute of Industrial Engineers*
2. *Member, South African Statistical Association*
3. *Member, Institute of Mathematical Statistics, Until 1989*
4. *Member, South African Mathematical Society, 1991-92*
5. *Member, The Southern African Institute of Management Scientists; since 2001*
6. *Member, South African Operations Research Society(Vice-President for 2007 and President elect for 2008)*
7. *Member, International Statistical Institute*
8. *Member, Society for Quality, Reliability and Operations Management*

8.4 H- Index (as of September 2019)

	H-index
Web of Science	11
Scopus	24
Google scholar	28

10. MANAGEMENT AND ADMINISTRATIVE DUTIES

10.1 *List your involvement in departmental activities (e.g. administrative functions), faculty (e.g. Faculty Committees) or other university activities.*

1. Faculty Research Committee; Faculty of EBIT, University of Pretoria (2006- 2012)
2. Department Research Committee, Department of Industrial & Systems Engineering (since 2005)
3. Different committees were served at different university nationally and internationally.
4. HOD, at University of Lesotho (1989), University of Transkei (1991-93), University of the North (1994-1997)
5. HOD, at University of the North, Limpopo, South Africa 1994-1997
6. HOD, at University of Pretoria, 2009- to date
7. Board Member, Faculty Appointments Committee, Faculty of EBIT, University of Pretoria
8. Board of Trustees, Member, University of Pretoria Pension and Provident Fund

11. COMMUNITY SERVICE OR PROFESSIONAL SKILLS

11.1 Outreach projects

(e.g. project titles, institutions and communities involved, etc.)

Several students persuaded for their M and D degrees under my supervision from several universities.

11.4 Involvement with other universities/scientific institutions

(e.g. external examiner, editor of journal, advisory council, CSIR, SA Council for Scientific Professions)

1. Academic Council Member; Vel Tech University; Chennai, India
2. Member, Research Advisory Panel, CSIR, South Africa

3. *President, Operations Research Society of South Africa (2008, 2009)*
4. *Vice-President; Operations Research Society of South Africa (2007)*
5. *Associate Editor, Asia-Pacific Journal of Operational Research(until 2010)*
6. *Associate Editor, International Journal of Management and Systems*
7. *Associate Editor, International Journal of Systems Assurance Engineering and Management, Springer.*
8. *Member, Advisory Board; SA Journal of Industrial Engineering*
9. *Member, Advisory Board; Management Dynamics*
10. *Member, Editorial Board; International Journal of Mathematical Modelling,, Simulation and Applications*
11. *Member, Editorial Board, International Journal of Computational Intelligence :Research and Applications*
12. *Regional Editor: International Journal of Operations and Quantitative Management; USA.*
13. *Member, Editorial Board; International Journal of Electronic Transport; Singapore*
14. *Member; Editorial Board; International Management Journal; Sangrahana; India*
15. *External Examiner for various undergraduate and post-graduate courses at national and international level*
16. *International Journal of Operations Research and Optimization*
17. *Associate Editor, Communications in Statistics, Taylor & Francis*

11.5 Referee duties (e.g. journals, dissertations/theses)

1. *IEEE Transactions on Reliability (USA)*
2. *European Journal of Operational Research*
3. *Communications in Statistics(USA)*
4. *Asia-Pacific Journal of Operational Research(Singapore)*
5. *International Journal of Production and Operations Management(USA)*
6. *Applied Stochastic Models in Business & Industry(Belgium)*
7. *Mathematical and Computer Modelling(USA)*
8. *International Journal of Production Research(UK)*
9. *Computers & Industrial Engineering(USA)*
10. *Journal of Applied Mathematics and Computing(USA)*
11. *Pure Mathematics and Applications(Hungary)*
12. *Journal of Income Distribution(USA)*
13. *International Journal of Management and Systems(India)*

14. *South African Statistical Journal*
15. *South African Journal of Science*
16. *South African Computer Journal*
17. *SA Journal of Industrial Engineering*
18. *Studies for Economics and Econometrics*
19. *ORiON (South Africa)*
20. *Management Dynamics(South Africa)*
21. *Indian Journal of Mathematics*
22. *Indian Institute of Science Journal*
23. *International Journal of Science and Technology*
24. *Journal of Applied Statistics(UK)*
25. *TOP (Spanish Journal of Statistics and Operations Research)*
27. *International Journal of Mathematics and Mathematics Sciences Association*
28. *Statistical Methods & Applications (Journal of the Italian Statistical Society)*
29. *Quality Technology and Quantitative Management (Israel)*
30. *International Journal of Information Technology and Decision Making(Hong Kong)*
31. *Asian-European Journal of Mathematics*
32. *Computational Statistics and Data Analysis (Korea)*
33. *International Journal of Information Technology and Decision Making*
34. *Reliability Engineering and Systems Safety (USA)*
35. *Computers and Mathematics with Applications (USA)*
36. *International Journal of Systems Science*
31. *More than 70 PhD theses and 30 M Sc dissertations were examined at both national and International level.*
32. *Transportation Research Part E (refereed the article titled `In-transit perishable product inspection)*
33. *Behaviour and Information Technology*
34. *Systemic Practice and Action Research*
35. *OMEGA*

12. AWARDS AND SCIENTIFIC/SCHOLARLY RECOGNITION

12.1 Evaluation status as scientist/scholar

(e.g. NRF; first evaluation and date, subsequent evaluations and dates)

NRF Rating: B3

H-index: 11(Web of Science), 24 (Scopus) and 28 (Google Scholar)

12.2 NRF Evaluation and Rating Specialist Committee (1 March 2021 to 28 February 2024)

12.2 Research awards and prizes

Distinguished Researcher award from Southern African Institute of Industrial Engineers, 2016.

Silver medal for the best paper published in Southern African Institute of Mining and Metallurgy.2016

Distinguished Educator Award from Industrial Engineering and Operations Management Society, 2015

Lifetime achievement award. Received a lifetime achievement award for the contributions in Industrial Engineering and Reliability theory; from the Society for Quality, Reliability and Operations Management, at ICQRIT conference held in Indian National Science Academy, in December 2006 .

Certificate of award conferred by the Society for Quality, Reliability and Operations Management, India, at ICQRIT conference held at University of Delhi.

Fellow: South African Statistical Association

Fellow: Industrial Engineering and Operations Management Society, USA

References:

1. Professor Santosh Kumar,

Santosh.kumarau@gmail.

com

2. Professor Ali Diabat