



NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Faculty of Computing and
Informatics

The International Conferences on Information Systems and Emerging Technologies (ICISSET) and International Conference on Data Science, Machine Learning and Artificial Intelligence (DSMLAI)

Date: 23 - 25 November 2022

Time: 08:00 - 16:00

Venue: 6th Floor, Room 1-5, High-Tech Transfer Plaza Select (HTTPS),
NUST Lower Campus

Zoom Link: <https://us02web.zoom.us/j/82079527499?pwd=N1NuZ2s4bHV1cGJycUJUL3ZY50x1UT09>

Meeting ID: 820 7952 7499

Passcode: 2IC@FCI



CRAN



**THOMAS ADEWUMI
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**FEDERAL UNIVERSITY
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Technology for Empowerment...



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Day 1

Inaugural Session

Date: Wednesday, 23 November 2022,

Time: 09:00 – 11:00 [CAT] / 12:30 – 14:30 [IST]

Venue: ICISSET and DSMLAI Conferences

Dates: Nov 23, 2022 08:00 AM Harare, Pretoria

Every day, until Nov 25, 2022

Join Zoom Meeting

<https://us02web.zoom.us/j/82079527499?pwd=N1NuZ2s4bHV1cGJyczlUL3ZYSox1UT09>

Meeting ID: 820 7952 7499

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Prof Fungai Bhunu Shava

Director of Ceremonies

Executive Dean, FCI and General Chair, ICISSET/DSMLAI

Time	Activity	Presenter
09:05	Welcoming Remarks	Dr Eroid Naomab <i>Vice-Chancellor: NUST</i>
09:15	Overview of the Conference	Prof Dharm Singh Jat <i>TPC Chair and UNESCO Chair on SHPCHER</i>
09:20	Remarks	Dr Colin Stanley <i>Acting Deputy Vice-Chancellor: Research, Innovation and Partnerships</i>
09:30	Remarks	Prof Randall Carolissen <i>Dean: Johannesburg Business School, University of Johannesburg, South Africa</i>
09:50	Remarks	Fr Roderick April <i>Secretary-General: Namibia National Commission for UNESCO</i>
10:00	Keynote Speaker	Prof Fransisca O Oladipo <i>Vice Chancellor, Thomas Adewumi University, Oko, Nigeria</i>
10:20	Opening Remarks	H.E. Dr Terhemem Tarzoor <i>High Commissioner of Nigeria to Namibia</i>

10:40	Vote of Thanks	Prof Jude Osakwe Local Chair (ICISSET)
10:45	Tea/Coffee Break	

Time	Technical Session - ICISSET-1	
11:00 - 13:00	Chair 1: Dr Attlee M. Gamundani, NUST	Chair 2: Dr Wanja Njuguna NUST
	Moderator: Mr Johnson Billawer, NUST	

Invited Speakers

Title	Speaker
	Ms Machaka Mosehana <i>University of Johannesburg, South Africa</i>
Fake news Detection: A long way to go	Prof Dilip Kumar Sharma <i>Dean (International Relations and Academic Collaborations) GLA University, India</i>
Contextually-relevant Theorising: Reflections from Information Systems Research in an African Context	Prof Irwin Brown <i>University of Cape Town, South Africa</i>

Paper ID	Authors	Title of Paper	Speaker
72	Mosima Anna Masethe, Hlaudi Daniel Masethe, Sunday Olusegun Ojo, Pius A Owolawi	Word Sense Disambiguation Pipeline Framework for Low Resourced Morphologically Rich Languages	
20	Emmanuel Udekwe, Chux Gervase Iwu, Olawande Daramola, Andre Charles de la Harpe	The Risk Implications of Ineffective Use of Human Resource Information Systems in the South African Public Health Sector	
4	Alexia Amakali, Irja Shaanika	A critical assessment of the factors impacting the full utilization of IS/IT in organisations	
75	Albertina Shilongo, Attlee M. Gamundani	Big Data Applications in Personalised E-learning for Distance Learners at Namibia University of Science and Technology	
27	Agostinho Tenente Da Silva, Herman Kandjimi	Designing a supervisory real-time tracking system for Namibian children	

Workshop 1: Session 1 (Panel Discussion):		
Time	Theme	Facilitators
12:00 - 13:00	Designing a supervisory real-time tracking system for Namibian children	Prof Fungai Bhunu Shava, Ms Marsela Rita, Ms Jennypnar Kavikairua, Ms Mamoqenelo Morolong, Mr Isaac Nhamu, Dr Mercy Chitauro (NUST Digital Forensics and Information Security Research Cluster)
13:00 - 14:00	Lunch Break	

Time	Technical Session - ICISSET-2 (Parallel Session)
14:00 - 15.30	Chair 1: Prof Abejide Ade- Ibijola, UJ Chair 2: Dr Mercy Chitauro, NUST Moderator: Ms Jordaania Andima, NUST

Paper ID	Authors	Title of Paper	Speaker
68	Ezekiel K. Olatunji, John. B. Oladosu, Stephen O. Olabiyisi	Towards the Development of a Token Recognizer for a Yorùbá-based Programming Language	
32	Ismaila Jesse Mazadu, Abayomi Jegede Joshua, Agu Edward, Ayodele Oloyade, Gilbert Aimufua, Egwom Onyinyechi Jessica	An improved deep sparse autoencoder driven network intrusion detection system (IDSAE-NIDS)	
14	Mary-Ann Esmerelda Prince and Abejide Ade-Ibijola	A comparative analysis of shared technological mobile facilities in Africa	
28	Aniah Anthony, Aniah Helen U	Educational Technology for Sustainable Development in the Era of Covid -19 Pandemic in Nigeria: Problems and Prospects	
69	Eva-Lisa Tuwilika Nawa, Mercy Chitauro and Fungai Bhunu Shava.	Developing a Cybersecurity Framework for the Namibian Banking Institutions	

Time	Technical Session - ICISSET-3(Parallel Session)
14:00 - 15.30	Chair 1: Dr Suama L. Hamunyela, NUST Chair 2: Dr Gloria Iyawa, NUST Moderator: Mr Eliazer Mbaeva, NUST

Paper ID	Authors	Title of Paper	Speaker
41	Stella Amarachukwu, Onwukanjo	Information Communications Technology (ICT) as a factor enhancing Information Dissemination on Climate Change in Public Libraries in North – Central Nigeria	
64	Omosola Jacob Olabode, Dayo Reuben Aremu, Folorunsho Joshua Bamisaiye	Stock Trading Optimization in Emerging Market of Nigeria Using Deep Reinforcement Machine Learning and Equity Market Neutral Strategy	
87	Ayobami Ekundayo, Enesi Femi Aminu, Uchenna Cosmas Ugwuoke	Improving the Accuracy of PCOS' Data Prediction Model Based on Data Balancing and Multilayer Feature Selection Strategies.	
74	Gabriel Musa and Fungai Bhunu Shava	Feature selection for Evaluating Deep Reinforcement Learning DDoS attack Detection Mechanisms using CICIDS2017 Dataset	
38	Henry Ijituji, Johnson Okeowo and Tabitha Obeisun	Achieving Customer Centricity Through Digital Strategy	
88	Uchenna Cosmas Ugwuoke	Performing Data Augmentation Experiment to Enhance Model Accuracy: A Case Study of BBC News' Data	
15:30 - 15:45	Tea/Coffee Break		

Workshop 1: Session 2 (Co-Design)

Time	Theme	Facilitators
14:00 - 17:30	Designing a supervisory real-time tracking system for Namibian children	Prof Fungai Bhunu Shava, Ms Marsela Rita, Ms Jennypnar Kavikairiua, Ms Mamoqenelo Morolong, Mr Isaac Nhamu, Dr Mercy Chitauro (NUST Digital Forensics and Information Security Research Cluster)

Time	Technical Session - ICISET-4 (Parallel Session)
15:45 - 17:00	Chair 1: Dr Munyaradzi Maravanyika, NUST Chair 2: Dr Richard Maliwatu, NUST Moderator: Mr Steven Tjiraso, NUST

Paper ID	Authors	Title of Paper
46	Rishen Roopchand, Jerome Andrew, Bruce Sithole	A Systematic Review of WAVE Water Treatment Design Software and Related Technologie
47	Sepiso Rezen Chikuruwo, Attlee M. Gamundani	The effects of volatile features on digital evidence preservation
35	Alfred Hove Mazorodze	Information Technology and Knowledge Management as enablers to innovation in higher education: A systematic literature review.
22	K Kayser, A Telukdarie	Digital Ecosystems in Financial Services driven by Embedded Finance Platforms in South Africa
15	Mulanduleni Niilungu, Irja N Shaanika	Analysing The Utilisation of The Open-Source Software in The Namibia Government Secondary Schools
53	Edafejirhaye, Idiada Vincent, Ichime Moses Oghenetega	Multimedia Systems, Social Media and Media Relations in Private Universities

Time	Technical Session - ICISET-5 (Parallel Session)
15:45 - 17:00	Chair 1: Dr Hugh Ellis, NUST Chair 2: Dr Samuel Akinsola, NUST Moderator: Mr Julius Silaa, NUST

Paper ID	Authors	Title of Paper
59	Ahmad Soni, Kershree Padayachee, Ritesh Ajoodha	A Graph Colouring Solution to the Timetable Problem with Hard Constraints in Higher Education Institutions
60	Siphehile Ndhlovu, Ritesh Ajoodha	A Novel Feature-Based Music Recommendation System Considering the Uniqueness of Musical Items
61	Mashaole Masekwameng, Ritesh Ajoodha	A Hybrid Method of Using Feedback from Users to Improve Music
63	Erin Ollewagen, Ritesh Ajoodha	Mapping Chordal Progressions from the Magnitude Spectrum to Symbolic Notation
84	Ndinelago Tupopila Nashandi, Hippolyte Muyingi	Persuasive Systems to Increase Museums Turnout

29	Arah Abubakar Saidu, Idris Abubakar Mohammed, Audu Rufai, Umar Ibrahim Yakubu, Abdulkadir Mohammed and Binni Danjuma Beji	Information and Communication Technologies Readiness and Acceptance Among Teachers in Vocational Enterprises Institutions in Abuja, Nigeria
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DAY 2

Date: Thursday, 24 November 2022,

Time: 08:00 - 17:00 (CAT) / 11:30 - 20:30 (IST)

Venue: Zoom/HTTPS

Time	Technical Session – DSMLAI-1
8:30 - 10:30	Chair 1: Prof Vivek Ashok Bohara, IIIT-Delhi Chair 2: Ms Loini liyambo, NUST Moderator: Mr Sebastian Mukumbira, NUST

Time	Technical Session – DSMLAI-1
Neurodegenerative Disease Detection using Machine Learning in Medical Imaging	Prof Manju Mandot <i>Professor of Computer Science, JRN Rajasthan Vidhyapeeth, Udaipur, India</i>

Paper ID	Authors	Title of Paper	Speaker
70	Naemi Gerson, Fungai Bhunu Shava	Designing a Security Model for E-health System in Namibia	
279	Vaishali Kadam, Kalpana Khandale, C. Namrata Mahender.	A Text Summarization System for Marathi Language	
1350	Suvarnmala Bangar, Ratnadeep Deshmukh	Remote Sensing and Machine Learning Techniques for development of E- Governance System and Smart City: A Review	
1607	Mohammed Hasan, A Ramesh Babu, Samah Ali Al-Azani	Improvements in NLU and NLG of pipeline TODSs and their effective impact on the intelligent e-learning.	
10	Ambrose Azeta, Blessing Guembe, Teresia Ankome, Jude Osakwe	Machine Learning Techniques for Automatic Long Text Examination in Open and Distance Learning	

Time	Technical Session – DSMLAI-2
10:45 - 12.45	Chair 1: Prof Navneet Kr Agrawal, MPUAT, Udaipur Chair 2: Dr Azeta Ambrose, NUST Moderator: Mr Herman Kandjimi, NUST

Paper ID	Authors	Title of Paper	Speaker
2810	Mokhtar Al-Awadhi, Ratnadeep Deshmukh	A Machine Learning Approach for Classifying Honey Botanical and Geographical Origins using Mineral Element Profiles	
3227	Bharat Shelke, C. Namrata Mahender	Question Answering System in Marathi Language	
3254	Ambrose Azeta, Guembe Blessing and Victor Osamor	A Federated Machine Learning Approaches for Anti-Money Laundering Detection	
3	Marsela Nur Rita, Fungai Bhunu Shava, Mercy Chitauru	Tech4Good: Artificial Intelligence Powered Chatbots with Child Online Protection in Mind	
9	Emmanuel Ejembi, Shawulu Hunira Nggada, Jose G. Quenum	Bi-model System Failure Analysis: A Case Study of Aircraft Wheel Braking System	
5	Opeoluwa Iwashokun, Abejide Ade-Ibijola	Structural Vetting of Research Proposals: Problematisation and Solving with Artificial Intelligence	
62	Sizwe Mzila, Hugh Hunt, Ritesh Ajoodha	Prediction of Lightning Occurrence in South Africa Using Neural Network and Meteorological Data	

Time	Technical Session – DSMLAI-2
10:45 - 12:45	Chair 1: Prof Chirag Suryakant Thaker, L D College of Engineering, Ahmedabad Chair 2: Dr Krishna Singh, G B Pant Government Engineering College, Delhi Moderator: Mr Nkululeko Mthembo, NUST

Paper ID	Authors	Title of Paper	Speaker
73	Hlaudi Daniel Masethe, Mosima Anna Masethe, Sunday Olusegun Ojo, Pius A Owolawi	Inference in Bayesian Network in Modelling Word Sense Disambiguation for Sesotho sa Leboa	
83	Heinrich Gladwen Dankie Geiseb, Ndinelago Tupopila Nashandi	Investigation into The Challenges of Implementing Scalable Big data Technologies and Techniques	

76	Aili Ashipala and Joshua A. Abolarinwa	SDN-Enabled Data Offloading and Load Balancing in WLAN and Cellular Networks
75	Albertina Shilongo, Attlee Gamundani	Big Data Applications in Personalised E-learning for Distance Learners at Namibia University of Science and Technology
89	Igwe Christopher Obeta and Ayandokun Janet	Assessment of the Application of ICT in TVET Programmes in Technical Colleges in Nige State, Nigeria
91	Jude Osakwe, Benjamin Akinmoyeje, Sinte Mutelo	Application of Blockchain Technology for Business Process Management
34	K.D. Muhammed, K.C. Igwe, J.A. Ezenwora	Computation of Radio Refractivity using Machine Learning Techniques

Time	Technical Session – DSMLAI-3
14:00 - 15:30	Chair 1: Prof Rakesh Kumar, NUST Chair 2: Mr Isaac Nhamu, NUST Moderator: Ms Albertina Shilongo, NUST

Paper ID	Authors	Title of Paper	Speaker
3756	Aarti Raut, Deepali Mahajan, C Namrata Mahender	Analysis of Short Answer: Under Online Subjective Examination	
5503	Namratha Khasnis, Snigdha Sen , Shubhangi S Khasnis.	Care-In-A-Cup: A Solution to Tend to the Needs of Autistic and Differently Abled Women	
7185	Aparna Magare, Ratnadeep Deshmukh	Milk Powder Analysis for Protein Content Estimation Using Fieldspec4 Spectroradiometer	
8867	Vinston Raja R, Srinath Doss, Ashok Kumar K	Cryptocurrency Price Prediction Using LGBM	
24	Blessing Guembe , Ambrose Azeta, Victor Osamor	Explainable Artificial Intelligence, The Fourth Pillar of Zero Trust Security	
55	Nkalubo Lenard Byenkya, Nakibuule Rose	A Review on Real-Time Object Detection Models using Deep Neural Networks	

Time	Technical Session – ICISSET-7 (Parallel)
14:00 - 15.30	Chair 1: Dr Islam Tharwat Abdel Halim, Nile University, Egypt Chair 2: Dr Chudey Pride, NUST Moderator: Ms Uakomba Mbasuva, NUST

Paper ID	Authors	Title of Paper
50	Lydia Hamunyela, Suama Hamunyela,	Factors Affecting Successful Implementation of Digital Governance in Organizations
25	Ambrose Azeta, Kingsley Jonathan, Blessing Guembe and Edurance Nwadoziokwu	A Deep Learning Approach for Casava Leaf Disease Diagnosis
7	Ambrose A. Azeta, Thomas van der Merwe	The Effects of Blended Learning Approaches on Class Attendance Scores in Two Final-Year Undergraduate Financial Accounting Courses
2	Ambrose A. Azeta, Frank Agono, Falade Adesola, Vivian O. Nwaocha, Steven Tjiraso	A Process Mining Framework for Analysing Students' Behaviours Using Digital Twin
48	Rubben Nambinga, Paulus Kautwima, Titus Haiduwa	Leveraging Technological Innovation and Creativity in Music Industry: A Case Study of Windhoek 'Backyards' Music Studios
93	Munyaradzi Maravanyika	An Exploration of Academic Integrity in Remote Teaching, Learning and Assessment in Higher Education During Covid-19: A Case Study

Time	Technical Session -DSMLAI 4
15:45 - 17:00	Chair 1: Dr Heena Rathore, ACM, DSP, Texas State University, USA Chair 2: Mr Edward Nepolo, NUST Moderator: Ms Teresia Ankome, NUST

Paper ID	Authors	Title of Paper
7436	Rohit Gupta, Ratnadeep Deshmukh, Akshay Kshirsagar	Analysis of Pharmaceutical Solid dosage forms using Machine Learning and Chemometrics Techniques
1334	Ganesh Mote, Ratnadeep Deshmukh, Babasaheb Sonawane	A Deep Object Detection and recognition Under Uneven Illumination Conditions

3087	Timothy Takawira Dongo, Attlee M. Gamundani, Mercy Chitauro	An Exploration of the Potential use of NLP Techniques in Social Media Platforms for Profiling Potential Paedophiles
3596	Dattatray Solanke, C Namrata Mahender	Understanding Word Order for Analysing Paraphrasing in Marathi Sentence

Time	Technical Session – ICISSET-8 (Parallel)
15:45 - 17:00	Chair 1: Prof Sanjay Shah, Government Engineering College, Gandhinagar Chair 2: Mr Arpit Jain, NUST Moderator: Ms Victoria Shakela, NUST

Paper ID	Authors	Title of Paper
77	Selma Theophilus, Jude Osakwe , Gabriel Nhinda	An Approach for the Integration of Business Intelligence Systems with Customer Relationship Management in Business Organisations
58	Samson Oladayo Ayanlade, Abdulrasaq Jimoh, Abdullahi Aremu, Abdulsamad Bolakale Jimoh, Fatina Mosunmola Aremu, Adedire Ayodeji Babatunde	Comparative Evaluation of Network Reconfiguration and Capacitor Allocation in Radial Distribution Network Performance Improvement
80	Irja Shaanika, Gabriel Nhinda and Katazo Amunkete	Assessing the implications of ICT Projects Vendor Lock-in to the Namibian Government Digital Transformation
37	Jumoke I. Oladele, Rotimi W. Okunloye	Students' Outlook to Online Teaching and Learning: A Case study of Post Graduate Diploma in Education students in a Nigerian University
21	Ennethe Murotua and Gloria Iyawa	Defining Open Government Innovation: Perspectives from Academia and Industry
54	Sinte Mutelo, Gloria Iyawa	Mobile apps for smart cities: A systematic review of apps on Google Play Store and Apple App Store

Day 3

Date: Friday, 25 November 2022,

Time: 08:00 - 17:00 (CAT) / 11:30 - 20:30 (IST)

Venue: Zoom/HIIPS

Time	Technical Session – ICISSET-9 (Parallel)
08:30 - 10.00	Chair 1: Prof Guy-Alain Zodi-Lusilao, NUST Chair 2: Prof Shawulu Hunira Nggada, HCT, Ras Al Khaimah Campus, UAE Moderator: Mr Simon Muchinenyika, NUST

Paper ID	Authors	Title of Paper	Speaker
71	Maite Lucky Rabyanyana, Abejide Ade-Ibijola	Design of an Immersive Virtual Reality Simulation for Training Small Businesses In South Africa: Storyline, and Content	
86	Mercy Onyioza Salami, Ishaq Oyebisi Oyefolahan, Enesi Femi Aminu, Solomon Adelowo Adepoju	Enhancing Salp Swarm Algorithm Based on Elite Opposition based Learning and Cauchy Mutation Strategies	
44	Rishen Roopchund, Jerome Andrew, Bruce Sithole	Effects of Cellulose Nanocrystals on Construction Materials: Meta-analyses Quantification using RevMan Software	
72	Mosima Anna Masethe, Hlaudi Daniel Masethe, Sunday Olusegun Ojo, and Pius A Owolawi	Word Sense Disambiguation Pipeline Framework for Low Resourced Morphologically Rich Languages	
82	Penehafo Nghitamuka, Mercy Chitauro and Attlee Gamundani	A Namibian Case Study on E-mail Phishing Awareness Approach	

Time	Technical Session - ICISSET-10 (Parallel)
08:30 - 10:00	Chair 1: Prof Chiranji Lal Chowdhary, VIT Vellore, India Chair 2: Mr Gereon Kapuire, NUST Moderator: Ms Josephina Muntuumo, NUST

Paper ID	Authors	Title of Paper	Speaker
12	Moreblessings Shoko, Maunga Pardon	Unmanned Aerial Systems for Simultaneous Medical Logistics and Computer Vision Derivatives	

31	Aishatu Hassan Muhammad, Izdihar Abdulwakil Saleh	Improving Access and Use of Library Resources and Services through Gamification
6	Ana Kundai Muchandigona1, Billy Mathias Kalema	Mobile Phone-Based Money as a Tool for Financial Inclusion in Developing Countries: A Review
78	Amos Gana Jiya, Joshua A. Abolarinwa	Taxonomy of Vehicular Network Simulator Software
43	Cristina Kedibone Magakwe, Khuliso Sigama, Billy Mathias Kalema and Michael Nthabiseng Moeti	Massive Open Online Courses Adoption Model for Corporate Training in the South African Private Sector
66	Ongame Frieda Nedeutalala Mutorwa, Gabriel Tuhafeni Nhinda, Josephina Muntuumo	An integrated Content Co-creation framework for Public Relations and Digital Media: A case study of a Namibian commercial organization

Workshop 2:

Time	African Workshop : Theme: Computing and Fourth Industrial Revolution (C&4IR): Cyber Security
10:30 - 12.30	Chair 1: Prof Fungai Bhunu Shava, NUST Moderator: Dr Attlee M. Gamundani, NUST

Invited Speakers:

Title	Speaker
An introduction to cybersecurity and industrial applications	Dr Martin Gilje Jaatun <i>Senior Scientist SINTEF Digital Adjunct Professor, University of Stavanger. IEEE Cybersecurity ambassador Vice chairman, Cloud Computing Association Vice-chair of IEEE TCCLD and Vice-chair of IEEE CS STC Blockchain</i>
Overview of Zero Trust Architectures	Dr Islam Tharwat Abdel Halim <i>Assistant Professor, Nile University Chair, Awareness and Customer Advocacy (ACA) Sub-Committee, DVP, IEEE Computer Society</i>

X-Phish: Days of Future Past: Adaptive and Privacy Preserving Phishing Detection	Prof Meenakshi Tripathi <i>Associate Professor: Malviya National Institute of Technology, Jaipur -India</i>
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Valedictory Session

Date: Friday, 25 November 2022

Time: 12:30 - 13:30 (CAT)

Venue: Zoom [[Click here to Join](#)]

Dr Suama L. Hamunyela

Director of Ceremonies

Associate Dean: School of Informatics, Journalism and Media Technology, FCI, NUST

Time	Activities	Speaker/Presenter
12:30	Concluding Remarks	Prof Fungai Bhunu Shava <i>General Co-Chair: Acting Executive Dean, Faculty of Computing and Informatics</i>
12:40	Recommendations of the Conferences	Prof Dharm Singh Jat <i>TPC Chair and Chairman: ACM Windhoek Chapter</i>
12:50	Remarks	Dr Colin Stanley <i>Deputy Vice-Chancellor: Research, Innovation and Partnerships</i>
13:00	Vote of Thanks	Prof José Quenum <i>Programme Chair</i>



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