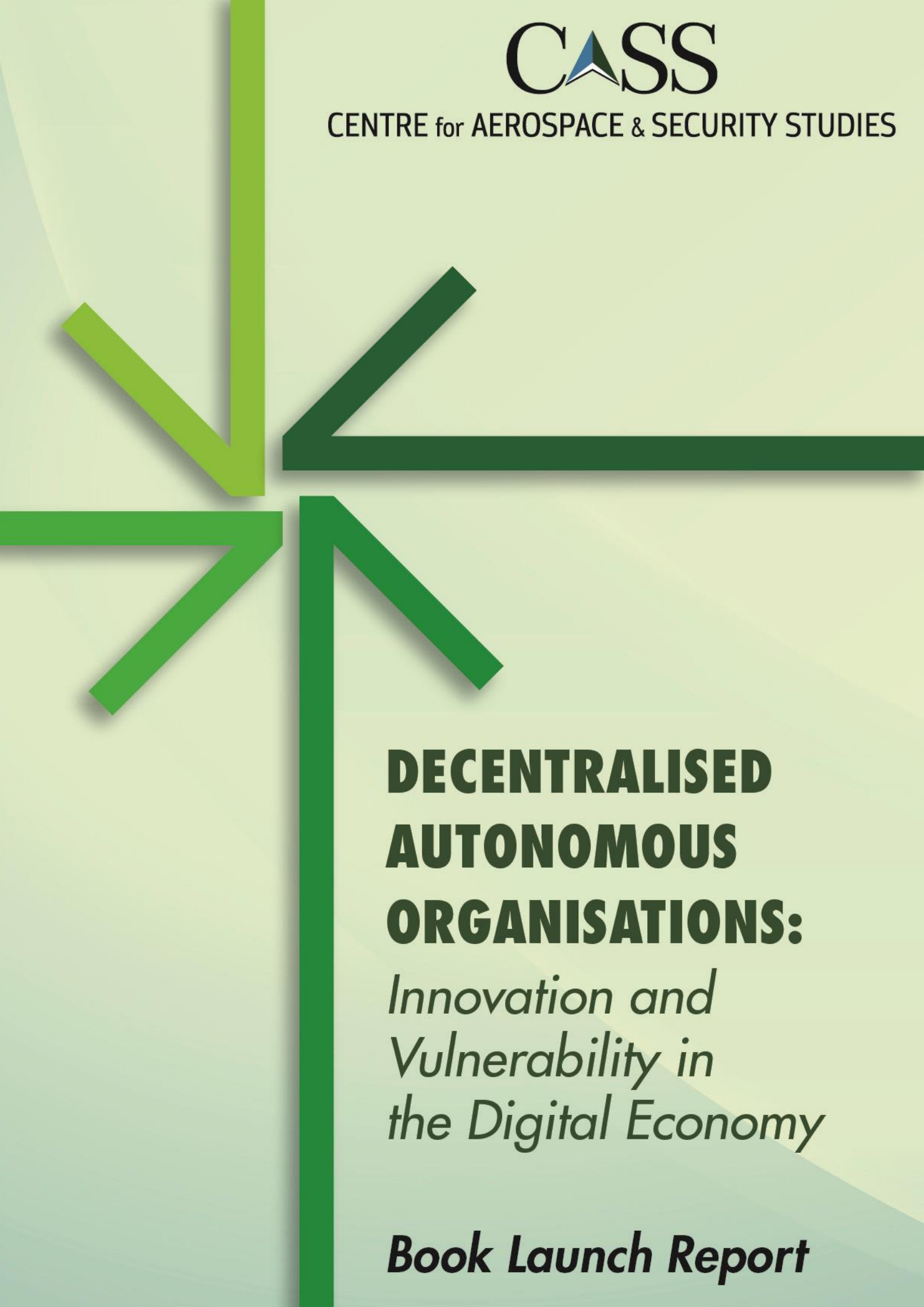




CENTRE for AEROSPACE & SECURITY STUDIES

A decorative graphic consisting of several thick green arrows of varying lengths and directions, some pointing towards the center and others away from it, set against a light green background with a subtle gradient.

**DECENTRALISED
AUTONOMOUS
ORGANISATIONS:**

*Innovation and
Vulnerability in
the Digital Economy*

Book Launch Report

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November 2024

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INTRODUCTION

The Centre for Aerospace & Security Studies (CASS), Islamabad, hosted a book launch for the edited volume *'Decentralized Autonomous Organizations: Innovation and Vulnerability in the Digital Economy'* (Routledge, 2024) in November 2024. The co-editor of the volume, Dr Usman W. Chohan, serves as Advisor to President CASS on Economic Affairs and National Development. The book serves as an additional milestone in the larger programme of Dr Chohan's examination of the potential of the digital economy.

The volume explores DAOs from a variety of perspectives across several disciplinary prisms and is likely to have significant impact on the study of blockchain technology, an important and oft-overlooked element of the digital economy. Despite their comparatively short history, a substantial research interest has emerged over the past four years on DAOs.

At the launch, Dr Chohan shared the key findings and insights from the book. The concluding remarks were delivered by President CASS Air Marshal Javaid Ahmed (Retd).



EXECUTIVE SUMMARY

In her Opening Remarks, **Research Assistant Zahra Niazi** highlighted the depth and multidisciplinary nature of the co-edited volume '*Decentralized Autonomous Organizations: Innovation and Vulnerability in the Digital Economy*' spanning the work of 11 authors from eight countries and seven academic disciplines.

Dr Usman W. Chohan presented key findings of the co-edited volume. He stated that the process of editing a multi-author volume, incorporating perspectives of various contributors from around the world, was an enriching experience. He explained that DAOs worked through pre-programmed algorithms called 'smart contracts', which automate operations, such as the operations of an investment pool or a voting system. DAOs had no central authority, and decisions were made by token holders. He further highlighted that DAOs had an immense economic potential. However, he acknowledged that definitional issues with regards to DAOs persisted, interpretation varied, and a significant legal overhang continued to weigh down upon DAOs. Despite these various challenges, DAOs had an important community purpose and offered something different, even if their future path still needed to be determined.

In his Concluding Remarks, **Air Marshal Javaid Ahmed (Retd)** congratulated Dr Chohan on the publication of his eighth book and commended his work ethic, extensive knowledge and versatility. He stated that Dr Chohan undertook work in very specialised domains and subjects that were international in nature and challenging to write on. Further, he emphasised that understanding DAOs, including their structure and implications, was essential to effectively comment on the future trajectory of global technology and finance.



KEY TAKEAWAYS



A Decentralised Autonomous Organisation (DAO) is a digital entity that operates on blockchain technology, using smart contracts to govern its functions. They have no central authority, with decisions made collectively by token holders.



The power of 21st Century technology is that it has the potential to create entirely new forms of organisations by using blockchain, maintaining records digitally, and having algorithms process everything.



DAOs are still at the incipient stage of evolution.



In terms of DAOs, definitional issues persist, interpretations vary, and the legal overhang is significant.



Despite their various challenges, DAOs have an important community purpose and offer something different, even if their future path still needs to be determined.



Understanding DAOs, including their structure and implications, is important to effectively comment on the future trajectory of global technology and finance.



Innovation and technology plays an indispensable role in economic development.



PROPOSED WAY FORWARD



DAOs are an important advancement worthy of more in-depth study.



There is a need to develop definitive accounts on novel economic technologies like DAOs.



To advance DAOs, it is essential to improve the governance models for DAOs, establish clear regulations, and prioritise security to protect them from vulnerability and attacks.



Young Pakistanis should remain abreast of economic technologies and make contributions to their advancement.



Novel economic technologies must be promoted given their vast potential in terms of enhancing efficiency and productivity, fostering financial inclusion, and empowering individuals, businesses and governments.



SUMMARY OF PROCEEDINGS

Zahra Niazi,

Research Assistant, Centre for Aerospace & Security Studies, Islamabad

Setting the stage, the moderator highlighted that the co-edited volume '*Decentralized Autonomous Organizations: Innovation and Vulnerability in the Digital Economy*' was truly multidisciplinary in nature, spanning the work of 11 authors from eight countries and seven academic disciplines and sought to address the pressing questions pertaining to DAOs.

Dr Usman W. Chohan,

*Advisor, Economic Affairs & National Development,
Centre for Aerospace & Security Studies, Islamabad*

Dr Usman W. Chohan stated that the co-edited volume '*Decentralised Autonomous Organisations: Innovation and Vulnerability in the Digital Economy*' focused on DAOs— an offshoot of blockchain technology. He explained that the process of editing a multi-author volume, incorporating perspectives of various contributors from around the world, was an enriching experience. The contributors hailed from countries, including Pakistan, France, the United Kingdom, the United States, and Australia, among others, leading the book to provide a well-rounded and comprehensive view of DAOs.

According to Dr Chohan, diversity of perspectives, impartiality, thoroughness, and creativity were the guiding principles that shaped the book and approach to the project. These values ensured the work presented a nuanced and balanced understanding of DAOs. He stated that while many might view DAOs purely as a technological innovation, the book aimed to provide a broader perspective that took into account the economic, legal, and governance aspects as well, along with a philosophical approach to the topic.

Dr Chohan explained that DAOs worked through pre-programmed algorithms called 'smart contracts', which automated operations, such as the operations of an investment pool or a voting system. DAOs had no central authority, and the decisions were made by token holders, emphasising that it was a shift away from traditional organisational structures where decisions were typically hierarchical.

The speaker, mentioning the immense economic potential of DAOs, noted that in 2024, the market for DAOs was valued at USD 22 billion, which was comparable to Pakistan's remittances or exports. He described how DAOs attracted significant investment, with over 200 DAOs surpassing a USD 1 million investment threshold and millions of people involved in these digital projects.



Providing an overview of the book's contents, he stated that the first chapter laid out the ambitions and thinking behind the exploration of DAOs. The second chapter focused on public policy, where Sven Van Kerckhoven explored basic problems such as issues of acumen, accountability, cooperation, and centralisation in today's world. Further, the contributions of two Irish professors, Paul Dylan-Ennis and Donncha Kavanagh, applied a model based on three elements—the hash, bash, and cash—where 'hash' represented the technology, 'bash' signified community involvement, and 'cash' referred to the economic aspect. The authors employed an ethnographic resonance approach, engaging with the community to better understand its dynamics.

Dr Chohan then discussed anarchism, observing that it had evolved over two centuries and had many offshoots, comparing it to a river with many bends. He related this to DAOs, noting that while they reflected aspects of anarchism, they also deviated from it in other ways, encouraging readers to understand the historical and philosophical context of the technology. The fifth chapter written by an American professor, Craig Calcaterra, addressed the mathematical modelling behind DAOs. The focus was on the idea that reputation served as the fundamental token of value in DAOs. The chapter discussed how the investment in reputation tokens could be quantified over time and how these calculations could be adjusted for more realistic time horizons.

The second part of the book covered opportunities and challenges. This part introduced the 'Extitutional Theory', highlighting the role of institutional and external factors in shaping organisations. Dr Chohan discussed how norms and culture influence decisions, using examples from the military and educational institutions. He also emphasised the importance of confidence and trust in building decentralised systems and communities, which operated under different rules and norms than traditional organisations.

He further talked about the chapter contributed by Maury Shenk and Jonas Weinberger, which explored the legal challenges faced by DAOs, noting the mismatch between DAOs and current legal systems. The chapter discussed ongoing cases, such as one in Wyoming, examining whether DAOs could be legally recognised as organisations, stressing the importance of aligning new technologies with existing legal frameworks.

Discussing his own chapter on the governance aspect of DAOs, Dr Chohan talked about how power asymmetries in DAOs could complicate decision-making. He elaborated that some participants might have greater influence due to their investment, emphasising the complexity of governing digital spaces governed by limited rules.

The final chapter focused on vulnerability mapping, where Kelsie Nabben worked with industry practitioners to identify weaknesses within DAOs. Finally, Dr Chohan



discussed important conclusions presented in the book. He stated that regarding DAOs, definitional issues persisted, and interpretation varied. Second, many purposes and design formulations were possible with DAOs. Third, DAOs had an important community purpose. Fourth, a significant legal overhang continued to weigh down upon DAOs. Fifth, even if not perfect, DAOs offered something different. Finally, the future path of DAOs was indeterminate. In the worst case, DAOs would be seen as a relic of an interesting innovation but would not proceed. In the best case, they could evolve into a transformative force in the future.

Air Marshal Javid Ahmed (Retd),

President, Centre for Aerospace & Security Studies, Islamabad

Concluding Remarks

In his concluding remarks, Air Marshal Javid Ahmed (Retd), President CASS, congratulated Dr Chohan on the publication of this co-edited book and commended his work ethic, extensive knowledge, and versatility. He stated that Dr Chohan's work covered diverse and challenging subjects, offering insights into both global and national issues. Notably, his work on international subjects contributed to filling the gap in this domain in Pakistan. President CASS stated that understanding DAOs, including their structure and implications, was essential to effectively comment on the future trajectory of global technology and finance.



ANNEXURES

Profile of Speakers

Dr Usman W. Chohan

Advisor Economic Affairs & National Development, Centre for Aerospace & Security Studies, Islamabad



Dr Usman W. Chohan is an international economist and academic, currently serving as Advisor to the President of CASS on Economic Affairs & National Development. He is recognised as one of the top 100 authors on the Social Science Research Network (SSRN). In the past six years, he has authored or edited eight books published by Routledge. Dr Chohan holds a PhD in economics from University of New South Wales, Australia, and an MBA from McGill University, with additional coursework at MIT-Tsinghua. His professional background includes roles at the National Bank of Canada and the World Bank.

Air Marshal Javaid Ahmed (Retd)

President, Centre for Aerospace and Security Studies, Islamabad



Air Marshal Javaid Ahmed (Retd) was appointed President of the Centre for Aerospace & Security Studies, Islamabad on 29 April 2024. Previously, he served as Vice Chancellor of Air University. With a distinguished career spanning approximately 40 years in the Pakistan Air Force (PAF), he has held several critical positions. His roles have included Chairman of the Pakistan Aeronautical Complex (PAC) Kamra, Officer Commanding of the Combat Commanders School, and Chief Project Director of the JF-17 Fighter Aircraft Production Program. He is recognised for his expertise in aerospace development policies, as well as

doctrine formulation and implementation strategies. Air Marshal Ahmed is an alumnus of the Air War College, where he graduated in Defence & Strategic Studies. He also holds Master's degree in War Studies from the National Defence University. His skills in command and management are complemented by his advanced knowledge in emerging academic fields. Previously, he also served as Director of Policy and Doctrine at CASS, Islamabad. In recognition of his significant contributions to the Pakistan Air Force, he awarded Tamgha-i-Imtiaz, Sitara-i-Imtiaz, and Hilal-i-Imtiaz (Military).

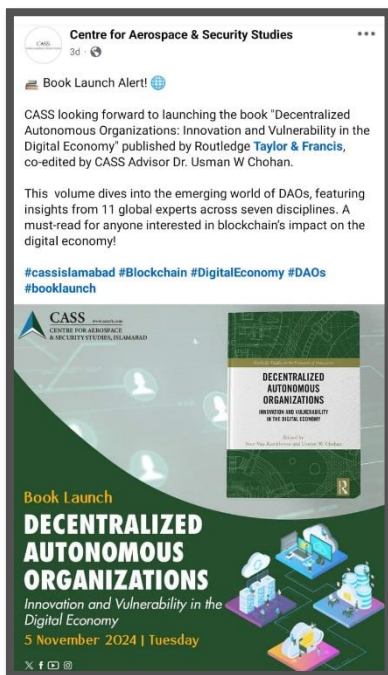


Social Media Engagement

Twitter



Facebook





Instagram

The Instagram post features a green-themed background with a network diagram. At the top left is the CASS logo (Centre for Aerospace & Security Studies, Islamabad). On the right is the book cover for 'Decentralized Autonomous Organizations: Innovation and Vulnerability in the Digital Economy', edited by Sven Van Kerckhoven and Usman W. Chohan. The main text reads: 'Book Launch DECENTRALIZED AUTONOMOUS ORGANIZATIONS Innovation and Vulnerability in the Digital Economy 5 November 2024 | Tuesday'. Below the text are icons for social media sharing and a list of users who liked the post, including 'zahraniazi_'. The caption text is: 'CASS looking forward to launching the book "Decentralized Autonomous Organizations: Innovation and Vulnerability in the Digital Economy" published by Routledge Taylor & Francis, co-edited by CASS Advisor Dr. Usman W Chohan. This volume dives into the emerging world of DAOs, featuring insights from 11 global experts across seven disciplines. A must-read for anyone interested in blockchain's impact on the digital economy!'.

The Instagram post has a green background with a quote by Dr Usman W. Chohan. The quote reads: 'In terms of Decentralised Autonomous Organisations (DAOs), definitional issues persist, interpretations vary, and the legal overhang is significant. Yet, DAOs have an important community purpose and offer something different, even if their future path still needs to be determined.' Below the quote is a photo of Dr Chohan speaking at a podium with the CASS logo. The caption text is: '2 likes casstinkers Are DAOs truly the future of decentralised decision-making? What risks and opportunities do they bring to the digital economy? Curious to learn more? Don't miss out - get your copy (published by Taylor & Francis Routledge and edited by Sven Van Kerckhoven and Dr Usman W Chohan) today! #booklatest #hotoffthepress #DigitalEconomy #DAO #decentralizedautonomousorganizations #newpublication #cassanalysis #innovation 3 hours ago'.



YouTube

Book Launch | Decentralized Autonomous Organizations | 5 Nov 2024

Centre for Aerospace & Security Studies
2.57K subscribers

20 views 6 hours ago #cassislamabad #Blockchain #DigitalEconomy
CASS launched the book "Decentralized Autonomous Organizations: Innovation and Vulnerability in the Digital Economy" published by Routledge Taylor & Francis, edited by Sven Van Kerckhoven and CASS Advisor Dr. Usman W Chohan.
...more

What Are Decentralised Autonomous Organisations?

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ABOUT CASS

Established in 2018, the Centre for Aerospace & Security Studies (CASS) in Islamabad is a non-partisan think tank offering future-centric analysis on aerospace and security issues. CASS engages with thought leaders and informs the public through evidence-based research, aiming to influence discussions and policies at the national, regional, and global level, especially concerning airpower, emerging technologies, traditional and non-traditional security.

VISION

To serve as a thought leader in the aerospace and security domains globally, providing thinkers and policymakers with independent, comprehensive and multifaceted insight on aerospace and security issues.

MISSION

To provide independent insight and analysis on aerospace and international security issues, of both an immediate and long-term concern; and to inform the discourse of policymakers, academics, and practitioners through a diverse range of detailed research outputs disseminated through both direct and indirect engagement on a regular basis.

CORE AREAS OF RESEARCH

Aerospace
Emerging Technologies
Security
Strategic Foresight



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