



**SuST.2024**

**International Symposium and Workshops  
|Nisyros, 07-10 July 2024**

# Sustainable Solutions<sup>≡</sup> at Times of Transition (SuST)

International Symposium and Workshops, 07 - 10 July 2024, Nisyros Island, Greece

<http://susteu.com>



Municipality of Nisyros,  
Greece



A R I S T O T E L E  
UNIVERSITY OF  
THESSALONIKI



UNESCO CHAIR 651



Mediterranean Network of Engineering &  
Management schools, France



# PROGRAM

Sunday, July 7<sup>th</sup>, 2024

## SYMPOSIUM - ZOSIMOPOULIO CONFERENCE HALL

18.00-21.00	Registration
19.30-20:00	Welcome addresses
	Anastasia Zabaniotou, Conference Chair
	Christofis Koroneos, Mayor of Nisyros
	Nicolas Moussiopoulos, Honorary Chair
20:00-21:30	<p style="text-align: center;"><b>Keynote speakers</b></p> <p style="text-align: center;"><i>Charis Doukas, Mayor of Athens</i></p> <p style="text-align: center;">Professor of Energy Policy and Management at the School of Electrical and Computer Engineering of the National Technical University of Athens</p> <p style="text-align: center;"><i>Christofis Koroneos, Mayor of Nisyros Municipality</i></p> <p style="text-align: center;">Associate Professor at the University of Western Macedonia, Chair of Renewable Energy Sources and Energy Management</p>

Monday, July 8<sup>th</sup>, 2024

## SYMPOSIUM - ZOSIMOPOULIO CONFERENCE HALL

8:30-14:00	<b>Registration</b>	
		<i>Moderators: A. Zabaniotou, Ch. Koroneos, N. Moussiopoulos</i>
9:00-9:30		<b>Donald Huisingsh (USA) (online), Plenary speaker</b> <i>Don't Waste a GOOD Crisis!</i>
9:30-10.00		<b>Constantinos Sioutas (USA), keynote speaker</b> <i>Air Quality and health impact in Milan: Biomass burning post Russia-Ukraine crisis</i>
S1	<b>Sustainable and Just Energy Transition</b>	<b>Moderators: C. Sioutas, D. Oktay</b>
10:00-10:20	<b>Abdul Salam K. Darwish (UK), Keynote</b> Transition to sustainable energy: Advancing energy crisis solutions through floating wind technology	
10:20-10:40	<b>Athanasios G. Konstandopoulos (GR), Keynote</b> Sustainable energy carriers for a just transition	
10:40-11.00	<b>Murphy Peksen (DE), keynote</b> Multiscale-multiphysics considerations of electrolysis materials, components, and systems: A sustainable way to produce green hydrogen	
11.00-11.20	<b>Nicolas Moussiopoulos (GR), Keynote</b> A reference solution for a global climate-neutral and sustainable energy system	
11.20-12.00	<b>PANEL Discussion and Questions</b>	<b>12:00-12:30 Coffee Break</b>
S2	<b>Holistic Perspective of Climate Change</b>	<b>Moderators: G. Katsavounidou, I. Spilanis</b>
12:30-12:50	<b>Derya Oktay (TR), plenary speaker</b> Sustainable urbanism in the era of globalization and climate change: A holistic perspective	
12:50-13:10	<b>P. Morone, A. Morone, R. Caferra</b> The proximity of climate change: Personal experience, psychological distance and sustainable behavior	
13.10-13:30	<b>A. Trombadore, G. Calcagno, L. Montoni</b> Energy and food: Technological innovation for energy efficiency and BIPV in a greener agri-food sector	
13:30-14:00	<b>PANEL Discussion and Questions</b>	<b>14:00-16:00 Midday Break for Lunch</b>
S3	<b>Participatory Processes for Sustainable Islands: Carrying Capacity, Social, Cultural, Economic, &amp; Environmental aspects</b>	<b>Moderators: P-J. Morone, N. Moussiopoulos</b>
16:00-16:15	<b>I. Spilanis, A. Mitropoulou</b> Islands: why now they require a dialogue with locals than ever before	
16:15-16:30	<b>E. Kondyli, J. K. Kaldellis, M. Zaroula, A. Adrianopoulou</b> Water Resources sustainability in Aegean Islands: The need for an integrated approach to a critical and continuous water-energy problem	
16:30-16:45	<b>N. Alonistioti, V. Gkika, C.J. Koroneos</b> Smart Nisyros: A digital twin-empowered platform for the detection, management	
16:45-17:00	<b>A.J. Kaldellis, M. P. Bratitsis, E. M. Kondyli, J. K. Kaldellis</b> Optimum sizing of a PV-battery solution for the green operation of Nisyros new desalination plant	
17:00-17:15	<b>D. Symeonidis</b>	

	The potential impact of hydrogen valleys for regional growth of the tourism industry in small islands: A Case Study
17:15-17:30	<b>I. Spilanis, S. Karampela, E. Alexiou, I. Katsounis, P. Dimitropoulos, A. Mitropoulou, K. Laskari</b> Participatory processes as a key strategy for sustainable Ionian islands
17:30-17:45	<b>D. Koutsi, E. Muggiano</b> Co-creating island tourism futures: Insights from participatory workshops implemented on Mediterranean islands
17:45-18:00	<b>PANEL Discussion and Questions</b>
18:00-18:30 Coffee Break	
S4	<i>Sustainability of Heritage and Tourism</i>
18:30-18:45	<b>S. Coll Pla, J. R. Calzada, M. F. Pérez, A. Panayotu</b> The sustainability of urban heritage
18:45-19:00	<b>M. Nastou</b> Sustainable heritage management of the ancient Greek theatre of Lindos, Rhodes, Greece
19:00-19:15	<b>A. Mitropoulou, I. Spilanis</b> Integrated approach for sustainable development on islands under tourism pressure: Exploring the link between overtourism and carrying capacity within an interdisciplinary dialogue
19:15-19:30	<b>I. Kostavelis, Ch. Achillas, D. Folinas</b> Cultivating connections: The TOURAL project's pathway to sustainable development through cultural and creative tourism
19:30-20:00	<b>PANEL Discussion and Questions</b>
21:00-24:00	<b>GALA DINNER</b>

Tuesday, July 9<sup>th</sup>, 2024

## WORKSHOPS-ZOSIMOPOULIO CONFERENCE HALL

W1	<i>Climate Change Adaptation, Monitoring, Technological Solutions</i>	
	<i>Moderators: A. Konstandopoulos , E. Kondylí</i>	
9:00-9:15	<b>D. Assimacopoulos, I. Sebos, D. Chioti, P. Katsiardi</b> Development and implementation of a national monitoring and evaluation system for climate change adaptation in Greece	
9:15-9:30	<b>N. Afxentiou, O. Douni, N. Paraskakis, P.A. Fokaides</b> Streamlining smart readiness: An innovative tool for quick SRI assessment in European buildings	
9:30-09:45	<b>A. Wolter, A. S. Darwish, P. Farrell</b> Beyond fossil fuels: Green hydrogen & wind energy-Building a secure and sustainable future	
09:45-10:00	<b>D. Ziouzios D., V. Karayannis, C. Tsanaktsidis</b> Sustainable wind energy production with the development of an innovative turbine monitoring algorithm using swarm robotics	
10:00-10:15	<b>T. K. Akiki, M.-J. Semaani, B. Nehme</b> Offshore wind potential in Lebanon	
10:15-10:30	<b>D. Tsirigoti</b> Urban typologies and sustainability: The effect of urban geometry at the Greek city's microclimatic conditions	
10:30-11:00	<b>PANEL Discussion and Questions</b>	
11:00-11:30 Coffee Break		
W2	<i>Circular Economy and Bioeconomy Solutions</i>	
	<i>Moderators: C.G. Young, D. Giorgi</i>	
11:30-11:45	<b>D. Achilias</b> The (thermo)chemical recycling of plastics as a sustainable solution to the plastic waste problem	
11:45-12:00	<b>M. Bampaou, G. Kardaras, Tz. Kraia, K.D. Panopoulos, L.P. Chrysikou, S. Bezergianni, S. Kiartzis, S. Pilitsis, E.A. Nanaki</b> A circular economy model for plastics waste valorization towards high-added value products	
12:00-12:15	<b>V. Proskynitopoulou, A. Vourros, P. Dimopoulos Toursidis, S. Lorentzou, T. Korka, A. Marinou, A. Foutri, Y. Fallas, N. Ntavos, K.D. Panopoulos</b> Upcycling food waste for healthier soil and more resilient food systems: A living lab approach in Northern Greece	
12:15-12:30	<b>M. Proestou, P. H. Feindt, N. Schulz</b> The role of the state in bioeconomy governance – The case of Germany and Malaysia	
12:30-12:45	<b>K. Poulios, A. Zafeirakou, A. Katsoulea, G. Perkoulidis, N. Moussiopoulos</b> Development and implementation of a municipal solid waste management system in the context of circular economy: Implementation in the region of Central Macedonia, Greece	
12:45-13:00	<b>E. Sdrolia, K. Cradock, M. Dermiki, G. Zarotiadis</b>	

	Green products and firm's financial performance in European manufacturing: A systematic literature review and meta-analysis	
13:00-13:15	<b>E. Giarimaga, L. Kitsanta, E. Salonikidis, S.-M. Tasiopoulos, A. Charalampous, C. Kyriklidis, C.G. Tsanaktsidis</b> Recent trends on optimal biodiesel production through artificial intelligence and nature-inspired techniques: A review	
13:15-13:30	<b>D. Skodra, C. Kiriklidis, E. Lakioti, V. Karayannis, C. Tsanaktsidis</b> Food industry waste management in the context of circular bio-economy towards a sustainable society	
13:30-14:00	<b>PANEL Discussion and Questions</b>	
<b>14.00 -16:00 Midday Break for Lunch</b>		
W3	<i>Digital Technologies and Artificial Intelligence</i>	<i>Moderators: A.S. Darwish, M. Peksen</i>
16:00-16:15	<b>A.Yayan, C. Ozonuk, B. G. Gulcan</b> Developing an AI-based approach in creating visual and digital content and AI generated fashion	
16:15-16:30	<b>D. Giorgi, C. Morea, C. Rutigliano</b> New circular scenarios for textile & fashion through digital product passport and digital twin	
16:30-16:45	<b>B. Koyuncu, C. Candan, M. M. Peksen, B. Nergis</b> A novel artificial intelligence-based approach for knitted fabric development	
16:45-17:00	<b>B. Saber, N. El Haoud, F. Z. Bassir</b> Artificial intelligence at the service of the smart and ecological city	
17:00-17:15	<b>N. El Haoud, Z. Bachiri</b> Impact of AI on socio-economic inequalities in Morocco: Perspectives and solutions	
17:15-17:30	<b>N. El Haoud, O. Hali</b> Exploring artificial intelligence in education in Moroccan context: Challenges and opportunities	
17:30-17:45	<b>S. Juidette, A. Zraiouil, S. Chatoui</b> Evaluating E-Learning Platforms in Higher Education: An Empirical Study of User Acceptance and Experience	
17:45-18:00	<b>PANEL Discussion and Questions</b>	
<b>18:00-18:30 Coffee Break</b>		
W4	<i>Urban and Rural Sustainability &amp; Inclusion</i>	<i>Moderators: T. Akiki, A. Wolter</i>
18:30-18:45	<b>W. O. Benaissa, S. Kabbaj, F. Ouahita</b> Navigating the eco-digital nexus for fostering sustainable futures and ecological resilience. How can digitalization be leveraged to promote sustainable solutions and enhance resilience in times of ecological crisis?	
18:45-19:00	<b>N. Manirakiza, C. G. Young</b> MSW landfills in developing countries - air and water pollution: how to improve?	
19:00-19:15	<b>M. Asteriou, G. Zarotiadis</b> Evaluating protected areas' contribution to sustainable local development in Greece	
19:15-19:30	<b>G. Katsavounidou</b> Early adolescent girls and their environment: Gendered experience of urban, suburban, and rural neighbourhoods in Greece	
19:30-19:45	<b>M. Chouari, M. Ghiss</b> Gender equality policies towards the empowerment of rural women in Tunisia	
19:45-20:00	<b>PANEL Discussion and Questions</b>	
20:30-24:00	<b>SOCIAL EVENT</b>	<b>PINK FLOYD CONCERT AT THE VOLCANO</b>

Thursday, July 10<sup>th</sup>, 2024**NETWORKING-COLLABORATION***Moderators: A. Zabaniotou, N. El Haoud, T. Akiki*

09:30-11:30

**Closing Session**

**PANEL:** C.J. Koroneos, A. Zabaniotou, C. Sioutas, A. Konstandopoulos, A.S. K. Darwish, D. Oktay, M. Perken, E.Kondyli, I. Spilanis, P-J. Morone