Time	5 December 2021 (Sunday)	6 December 2021 (Monday)			7 December 2021 (Tuesday)			8 December 2021 (Wednesday)			9 December 2021 (Thursday)		10 December 2021 (Friday)	
8:30		REGISTRATION												
9:00		Chair: Mayeen Uddin Khandaker Plenary Speaker: Koji Yoshimura Th-229m and the quantum clock			Chair: David Bradley Invited Speaker: Larry Hudson The Measure of All Things			Chair: Suhairul Hashim Plenary Speaker: Charles Grant The Application of INAA for agricultural and health related studies in Jamaica			Chair: Jeannie Wong Invited Speaker: Mayeen Khandaker The significance of nuclear data for accelerator-based production of novel radionuclides for theranostic applications		Chair: Julia Abdul Karim Invited Speaker: Hector Rene Vega-Carrillo Geo-neutrons	
9:15														
9:30		Chair: Mayeen Uddin Khandaker Keynote Address: Ts. Dr Siti A'iasah Hashim Building a nuclear technology infrastructure: Malaysian experience			Chair: David Bradley Invited Speaker: Paul Bergstrom The status of the NIST radiation interaction databases			Chair: Suhairul Hashim Invited Speaker: Peter K N Yu Rescue effect: a non-targeted biological effect of ionizing radiation			Chair: Jeannie Wong Invited Speaker: Hairul Azhar Distributed Optical Fiber Radiation Dosimetry		Chair: Julia Abdul Karim Invited Speaker: Phil Egidi Mineral Wealth and NORM. Standing Up a New Rare Earths Industry in the United States	
9:45														
10:00		OPENING CEREMONY			COFFEE BREAK/EXHIBITOR VIDEO			COFFEE BREAK/EXHIBITOR VIDEO			COFFEE BREAK/EXHIBITOR VIDEO		COFFEE BREAK/EXHIBITOR VIDEO	
10:15														
10:30					Chair: Jeannie Wong Invited Speaker: Christopher Chantler Advances in Atomic and Molecular Physics			Chair: Che Azurahanim bt Che Abdullah Invited Speaker: Siti Fairus Abdul Sani Physical studies of the Epithelial Mesenchymal Transition in Breast Tissues			Chair: Jeannie Wong Invited Speaker: Mark Breese The Singapore Synchrotron Light Source (SSLS)		Chair: Ahmad Taufek Invited Speaker: Ng Kwan Hoong Medical Physics Education: The Way Forward	
10:45														
					Chair: Siti Fairus Abdul Sani Co-Chair: Razif Razali	Chair: Lam Siok Ee Co-Chair: Faizani Mohd Noor	Chair: Nur Nabihah binti Yusof Co-Chair: Yap Yung Szen	Chair: Rafidah Zainon Co-Chair: Muhammad Khalis	Chair: Ung Ngie Min Co-Chair: Nurul Hashikin Ab. Aziz	Chair: Yeong Chai Hong Co-Chair: Siti Zubaidah Ismail	Chair: Dr Faizal Mohamed Co-Chair: Dr Syazwani Fadzil	Chair: Hafiz Zin Co-Chair: Dr Mohd Idzat Idris	Chair: Hairul Azhar Abdul Rashid Co-Chair: Dr Nur Nabihah binti Yusof	Chair: Ahmad Taufek Co-Chair: Mohamad Syazwan
11:00		Chair: Mayeen Uddin Khandaker Invited Speaker: Pradip Kumar Sarkar Recent development of neutron detectors for spectrum and dose estimation			Morning A: Theoretical investigation & quantitative analytical techniques in radiation physics	Morning B: Applications of radiation in agriculture, biology & medical sciences	Morning C: Absorption & fluorescence spectroscopy	Morning A: Applications of radiation in agriculture, biology & medical sciences	Morning B: Applications of radiation in agriculture, biology & medical sciences	Morning C: Applications of radiation in agriculture, biology & medical sciences	Morning A: New radiation sources, techniques and detectors	Morning B: Applications of radiation in material science, nanoscience & nanotechnology	Morning A: Application of radiation in space, aeronautics, earth, energy & environmental sciences	Morning B: Application of radiation in space, aeronautics, earth, energy & environmental sciences
11:15														
		Chair: Julia Abdul Karim Co-Chair: Mazleha Maskin	Chair: Ming Tsuey Chew Co-Chair: Nor Afifah Basri	Chair: Noramaliza MN Co-Chair: Izyan Hazwani										
11:30		Morning A: Radiation physics and applications	Morning B: Fundamental processess in radiation physics	Morning C: Theoretical investigation & quantitative analytical techniques in radiation physics										
11:45														
12:00													CLOSING CEREMONY	
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13:45		LUNCH/VENDOR TALK			LUNCH/SPONSORED TALK Chair: Azleen Mohd Zin Speaker: Chanh Quoc Tran La Trobe University - Complex atomic fine structure across the copper K-edge: new results and opportunities			LUNCH/VENDOR TALK			LUNCH/VENDOR TALK			
14:00														
14:15														
		Chair: Suffian Mohamad Tajudin Co-Chair: Yap Yung Szen			Chair: Muhammad Safwan Bin Ahmad Fadzil Co-Chair: Lam Siok Ee			Chair: Jeannie Wong	Chair: Azleen Mohd Zin Co-Chair: Mazlyfarina Mohamad	Chair: Hafiz Zin Co-Chair: Zunaide Kayun	Chair: Ming Tsuey Chew Co-Chair: Koh Meng Hock	Chair: Muhammad Khalis Co-Chair: Norhanna Suhaimi		
14:30														
14:45		Afternoon A: Applications of radiation in industry			Afternoon A: Application of radiation in cultural heritage & art			Afternoon A: Forum on "Women in Nuclear Science and Technology" - Siti Ai'asah Hashim, Isabel Lopes, Khuloud S Almogren, Shakardokht Jafari	Afternoon B: Applications of radiation in agriculture, biology & medical sciences	Afternoon C: Applications of radiation in material science, nanoscience & nanotechnology	Afternoon A: New radiation sources, techniques and detectors	Afternoon B: New radiation sources, techniques and detectors		
15:00	Chair: David Bradley Co-Chair: Dr Ming Tsuey Chew Workshop -Radiation and Radiobiology in Extreme Circumstances Faculty: Ming Tsuey Chew Andrew Nisbet Roger Dale Bleddyn Jones Mark Hill													
15:15		Chair: Mayeen Uddin Khandaker Invited Speaker: Heinz-Eberhard Mahnke The Life and Times of Lise Meitner: beta-decay and non-radiative electromagnetic transitions			Chair: Hairul Azhar Abdul Rashid Invited Speaker: Pedro Vaz State-of-the-art of the medical applications of radiation - hot topics and emerging issues						Chair: Muhammad Khalis Invited Speaker: Marco Sumini Compact and very High Dose-rate Plasma Radiation Sources for Medical Applications			
15:30														
15:45		COFFEE BREAK/EXHIBITOR VIDEO			COFFEE BREAK/EXHIBITOR VIDEO						COFFEE BREAK/EXHIBITOR VIDEO			
16:00														
16:15		Chair: Mayeen Uddin Khandaker Invited Speaker: Sandrine Courtin Direct Measurements of Carbon Burning at Astrophysical Energies			Chair: Hairul Azhar Abdul Rashid Invited speaker: Arne Miller Radiation Processing – Applications and Dosimetry						Chair: David Bradley Invited Speaker: Sultan Dabagov Capillary Guiding for Beams and Radiations			
16:30														
16:45		Chair: Mayeen Uddin Khandaker Plenary Speaker: Philip Walker Isomers as a bridge between nuclear and atomic physics			Chair: Hairul Azhar Abdul Rashid Plenary Speaker: Heinz-Eberhard Mahnke Radiation studies of items of cultural heritage			Chair: Ahmad Taufek Invited Speaker: José Paulo Santos X-ray spectrometry: theoretical and experimental determinations			Chair: David Bradley Invited Speaker: Shakardokht Jafari Advances in silica bead dosimetry			
17:00														
17:15								BREAK TIME						
17:30														
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18:00								Conference dinner						
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