

## EACMaRWORKSHOP ON LINKING MATHEMATICS RESEARCH WITH INDUSTRIES AND GOVERNMENT INSTITUTIONS.

*“Strengthening collaborative linkages between Mathematics research and industrial applications for sustainable development”*

### PROGRAMME

**DAY 1 – 27<sup>TH</sup> MAY 2022**

TIME	ACTIVITY	RESPONSIBLE PERSON
8:00 - 8:30	Registration	ALL
8:30 - 8:50	OPENING REMARKS	Head of Department
8:50 – 9:30	Briefing Activities from supporting projects	Prof. E. Mureithi (Math4SDG) Dr. J. Makungu (EAUMP) Dr. D. Koloseni (Sida) Dr. E. Mujuni (EACMaR)
9:30 – 10:00	Speech of the Guest of Honour	Guest of Honour
10:00-10:10	Group Picture	All
<b>10:10 – 10:50</b>	<b>Tea Break</b>	<b>ALL</b>
	<b>Research presentations 1:</b> <b>Chair: Dr. Kitta</b>	
10:50-11:20	The extent to which the East African industry utilizes Mathematics to solve its real problems	Prof. V. G. Masanja (NMAIST)
11:20-11:50	Diabetes in Tanzania: Applications of Mathematics in Health	Dr. Mary Mayige (NIMR)
11:50-12:20	Data Science and Mathematical modeling in Health Research	Dr. Isaac Lyatuu (IHI)
12:20-12:50	Use of Mathematics in climate and weather applications	Dr. Sarah Osima (TMA)
12:50-13:00	Discussion	ALL
<b>13.00 - 14.00</b>	<b>Lunch Break</b>	<b>ALL</b>
	<b>Research presentations 2:</b> <b>Prof. E. Mureithi</b>	
14:00-14:20	Tanzania pension reforms: A proposal to non-contributory universal pension	Dr. John Andongwisye (UDSM)
14:20-14:40	Mathematics Research at the University of Dodoma	Dr. Jefta Mvukaye Sunzu (UDOM)
14:40-15:00	Mathematics Research at Dar es Salaam University College of Education	Dr. Zubeda Musa (DUCE)
15:00-15:20	Mathematics in Standardization	Mr. Joseph Kadege (TBS)
15:20-16:00	<b>Health Break</b>	
16:00 - 16:20	Mathematics Research at Mkwawa University College of Education	Dr. Jacob Irunde (MUCE)
16:20 - 16:40	Mathematics Research at The Nelson Mandela African Institution of Science and Technology	Dr. Silas Mirau (NM-AIST)
16:40 – 16:50	Discussion	ALL

**DAY 2 – 28<sup>TH</sup> MAY 2022**

<b>TIME</b>	<b>ACTIVITY</b>	<b>RESPONSIBLE PERSON</b>
8:30 - 9:00	Registration	ALL
	<b>Research presentations 3: Dr. G. Mlay</b>	
9:00 - 9:20	Operation research contribution to the performance of supermarket in East Africa	Prof. Allen Mushi (Mzumbe)
9:20 – 9:40	Mathematics knowledge behind block-chain technology and it's use in industries and institution development	Ms. Ema Boki (UDSM)
9:40-10:00	Mathematics in electricity companies	Mr. Clement Mwakalosi (Tanesco)
10:00-10:20		Dr. Idrissa Amour
10:20-10:30	Discussion	All
<b>10:30 – 11:00</b>	<b>Tea Break</b>	<b>ALL</b>
11:00 - 11:20	Mathematical Modeling and its applications in weather forecasting	Mr. Chuki .A. Sangalugema(TMA)
11:20 - 11:40	Mathematical modeling and its application in Capital and solvency assessment	Mr. Ally Khalfan (TIRA)
11:40 - 12:00	Effect of harvesting and drought on a predator-prey system with optimal control	Mr. Allanus Mapunda (UDSM)
12:00 – 12:20	Optimal control and cost effectiveness analysis of an age structured malaria model with asymptotic carrier and temperature variability	Ms. Asha Kalula (UDSM)
12:20-12:30	Discussion	ALL
<b>12:30 - 13:30</b>	<b>Lunch Break</b>	<b>ALL</b>
	<b>Research presentations 4: Ms. Samya Suleiman</b>	
13:30 - 13:50	Developing a heuristic algorithm for sustainable transport of bulk mining cargo: A case study of Zambia single model (unimodal) rail/road networks	Mr. Fines Miyoba (Copperbelt University)
13:50 - 14:10	Trends of mathematics students' performance in Tanzania secondary schools and its implication to the future industries.	Ms. Honorata Kihaga (UDSM).
14:10 - 14:20	Discussion	ALL
14:20 - 14:30	Closing Remarks	Dr, S. E. Rugeihyamu
14:30 - 15:00	<b>Evening Tea Break and closing</b>	<b>ALL</b>