

In celebration of the launch of the UKZN
 Aerospace Systems Research Institute (ASRI),
 you are cordially invited to an

AEROSPACE ENGINEERING SEMINAR:
 A Deep Dive into ASRI's Rocket Research Activities


 Tuesday

30 APRIL
 2024


16h00 - 17h30


UNITE Building,
 School of Engineering, UKZN
 Howard College Campus

CLICK HERE TO RSVP
 



ABOUT THE SEMINAR:
 Join us for a set of presentations by engineering personnel in the Aerospace Systems Research Institute. The seminar will comprise brief talks of 10 minutes each, covering topics such as the flight performance of a Phoenix hybrid rocket, the design and ground-testing of UKZN's powerful ABLE liquid rocket engine, the development of electronics payloads for suborbital rockets, and the phenomenon of slosh and novel chemical propellants. ASRI's rocket scientists will introduce you to the inspiring world of supersonic flight and give attendees an idea of what it takes to design and build the mightiest of the flying machines.



SPOT
 PRIZES

LIGHT
 CATERING



ABOUT ASRI: The Aerospace Systems Research Institute (ASRI) is located in UKZN's Discipline of Mechanical Engineering and was formally established by the Council of the University in 2022. Its forerunner, ASReG, was established in 2009 to conduct applied research in aerospace engineering and develop highly skilled engineers for the South African economy. ASRI now runs one of the largest university-based aerospace research programmes in South Africa and focuses on the design, development and testing of aerospace propulsion and flight systems, including rocket engines, turbopumps and turbomachinery, suborbital and orbital (space) launch vehicles and novel propellants. Since 2009, UKZN engineers have built and tested numerous research rocket motors and flown several suborbital rockets. Notable technical achievements include the establishment of a new African altitude record for suborbital hybrid rockets, the development and testing of the most powerful university-built liquid rocket engine on the African continent and the development of unique ground test facilities for hybrid and liquid (cryogenic) rocket propulsion systems. All of these activities are aligned with ASRI's driving aim to develop an indigenous, commercial space launch capability for the Republic of South Africa. The institute receives support for its research from the Department of Science and Innovation.

PRESENTERS:

PRESENTER	TITLE
1. Professor Jean Pitot	Performance of an 18kN Ablatively Cooled, Blowdown Liquid Rocket Engine
2. Mr Nino Wunderlin	Development of the SAFFIRE ABLE Liquid Rocket Engine Chamber
3. Mr Prince Ngomane	Fuel Coking Evaluation of Kerosene-Type Fuels
4. Mr Jordan Silver	Rocket Engine Cycles – Cooling the Gas Generator and Electrically Pumped Engines
5. Mr Mzwandile Nzimande	Slosh! – What is it and how do we analyse it?
6. Mr Rylan Odayan	Evaluating Suborbital Sounding Rocket Missions from South Africa
7. Dr Sarisha Harrylal	3, 2, 1 ... Ignition! The 2023 Phoenix Hybrid Rocket Launch Campaign
8. Mr Mthobisi Tshomela	Development of a Payload Module for the Phoenix-1C Hybrid Sounding Rocket
9. Mr Thabang Mdhuli	Gel Propellants – ASRI's New Test Rig for Visualizing Atomization

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