

## **JKUAT Shines at the Extractives Forum – MINING4I**

The Department of Mining, Materials & Petroleum Engineering (MMPE) recently participated in the Mining4I event at Strathmore University. The event which was organized by Strathmore Extractives Industry Centre (SEIC) and Kipya Africa Drilling Solutions, saw players from the extractives Sector convene under one roof to promote the extractives agenda. The four Is in Mining4I represent the pillars of Innovation, Information, Investment and Interaction. An integral element of the event was on innovations which were presented before a panel of experts for review and potential funding as a reward for the best innovations.

The Department was led by Prof. Bernard K. Rop, the Chairman of MMPE and was accompanied by his staff and students. The event availed the opportunity to present an innovation that was conceptualized and cultured under the department. Mr. Gilbert Bett, a member of staff at the same department was among the finalist who presented the innovation on a mercury retort for safe extraction of gold. Mercury retort is an equipment that provides for safe harvesting of gold from the gold-mercury amalgam. Mercury is a health hazard and the mercury retort drastically minimizes exposure to mercury vapour as heating is conducted in a closed compartment. When heat is introduced and once certain temperatures are achieved the mercury vaporizes and is cooled at one end eventually regaining its original form. once the mercury is liberated, only gold is left. The retort machine developed by the department is one of the projects by the department aimed at positively impacting the artisanal and small-scale gold mining community in Kenya. The Department also fosters environmentally friendly mercury-free methods of gold extraction.

When delivering the guest of honour's speech on behalf of the Cabinet Secretary for Mining, Mr. Shadrack Kimomo, the Director of Geological Surveys, lauded the efforts involved in conceptualizing and scaling up the different innovations. He

particularly stressed the need for more innovations especially by young people as a precursor to exploiting the potential in the country's mining, oil and gas sub-sectors. He further advocated for continued linkages between academia and the industry to solve sector-specific problems.

Miss Audrey Mulama, a former Mining & Mineral Processing Engineering student at JKUAT emerged the overall winner as a result of her innovation on Bio-mining of gold using micro-organisms. Bio-mining is an increasingly applied biotechnological procedure for processing of ores in the mining industry. Miss Mulama received her Bio-mining Project tutelage under the MMPE Department and she carried out her research under the guidance of the Institute of Biotechnology Research (JKUAT).

Prof. Rop exuded great joy in seeing the youth embracing the opportunities available in the extractives. He reiterated that his department is committed to equipping students with the knowledge that challenges them to be creative and innovative, consequently meeting the demands of the industry.

Miss Kerry Watiri, a third-year student who attended the event described the event as an eye-opener not only to herself but to her fellow students. According to her, she felt challenged and looked forward towards coming up with an innovation. The students also actively engaged the industry players during the networking session.

Plans are currently underway by the department of MMPE for JKUAT to play host to the next Mining4I event.