



Research and Innovation Office MONTHLY NEWSLETTER



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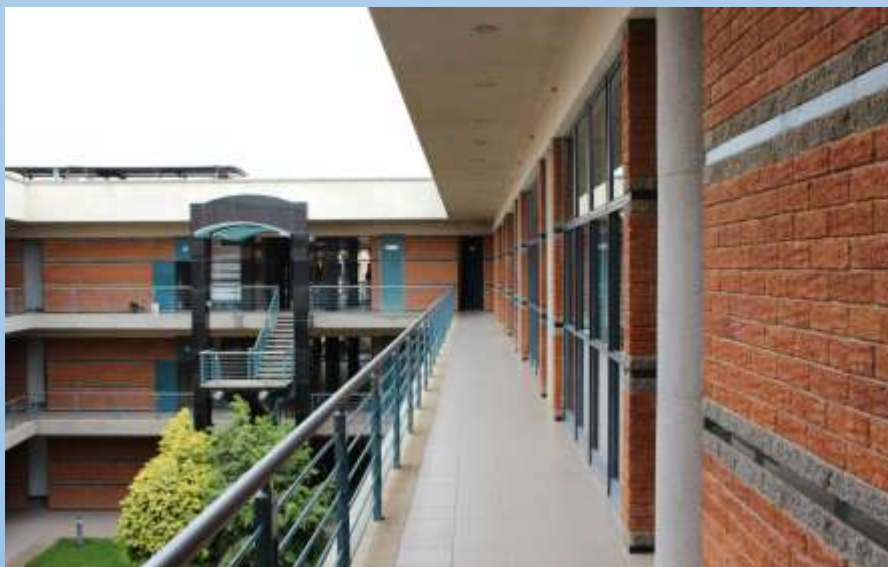
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E ditor's Note

Welcome to our September 2018 issue, the first monthly newsletter of 2018. This issue features our researcher of the month, our research fellow of the month and it also gives you a peak into the October issue.

Any suggestions or enquiries can be directed to our research administrator at the following address: resadmin@nust.ac.zw. You can also contact the Director for RIO at rio.director@nust.ac.zw.

Editor's Pick

From this issue henceforth, the Research and Innovation Office will be celebrating the United Nations Days and Months.

Also, any researchers who desire to share their research activity related to these days and months are welcome and they can contact the Research and Innovation Office at: resadmin@nust.ac.zw.



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DID YOU KNOW..

Michael W. Young



© Nobel Media AB. Photo: A.Mahmoud

Michael W. Young

Born: 28 March 1949, Miami, FL, USA

Affiliation at the time of the award: Rockefeller University, New York, NY, USA

Prize motivation: "for their discoveries of molecular mechanisms controlling the circadian rhythm."

Prize share: 1/3

<https://www.nobelprize.org/prizes/medicine/2017/young/facts/>

He has dedicated over three decades to research studying genetically controlled patterns of sleep and wakefulness within *Drosophila melanogaster*.

During his time at Rockefeller University, his lab has made significant contributions in the field of chronobiology by identifying key genes associated with regulation of the internal clock responsible for circadian rhythms. He was able to elucidate the function of the period gene, which is necessary for the fly to exhibit normal sleep cycles. Young's lab is also attributed with the discovery of the timeless and double time genes, which makes proteins that are also necessary for circadian rhythm. He was awarded the 2017 Nobel Prize in Physiology or Medicine along with Jeffrey C. Hall and Michael Rosbash for their discoveries of molecular mechanisms controlling the circadian rhythm.

Some Motivation:



Did You Know:

RIO Office facilitates three journals namely:

1. ZJST– Zimbabwe Journal of Science and Technology
2. SAJCIS– Southern Africa Journal of Communication and Information Sciences
3. ZJCMS– Zimbabwe Journal of Commerce Management Sciences

You can access any of these three journals at our webpage– www.nust.ac.zw/rio

Researchers are also welcome to submit their papers in any one of our journals!



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RESEARCHER PROFILE



This month RIO is interviewing Dr Peter Baricholo, a researcher from the Applied Physics Department. Dr Baricholo is a Senior Lecturer who is currently involved in Fiber Communication and Development of Lasers, development of Optic Fiber Telecommunications, Broadband Communication over Power Lines and Gamacolumns scanning which is a fault finding technique. This project is being funded by TelOne and it commenced at the beginning of this year, 2018. He is also working on a project of Traffic Lights which is being funded by the Research Board and Industrial Application of Radio Isotopes project which is being funded by the IAEA (International Atomic Energy Agents).

In the interview, Dr Baricholo highlighted the various benefits that come with these projects and these include the fact that TelOne will have a sustainable product to sale to its clients and reduction in the downtime of processes using

industrial application of isotopes as there will be implementation of online plant diagnostics where the system will detect any malfunctions without shutting down.

Moreover, despite different draw backs Dr Baricholo is giving back to the community. The use of traffic lights project is bringing in physics for sustainable development as he expressed his concern over the local council. "The local council often finds it difficult to maintain or install traffic lights hence this project aims to reduce costs as the traffic lights are solar powered" he said. In addition, these traffic lights will help the mining sector as they will be used for underground locomotives and the Hwange Colliery company has expressed its interest in this project, which is still under development.

He pointed out funding as a draw back in research. Dr Baricholo stated that he would want the research environment at NUST to be improved by funding teaching assistants and that they should be considered employees at NUST and receive benefits and he also feels that the infrastructure needs some improvement, "we need funding to purchase capital equipment to have a good research lab", he said. He however commended the research board for a job well done and thanking them for funding him in his traffic lights project.

He jokingly says that he sees himself in the next ten years being in industry. Possibly farming or starting his own company.



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RESEARCH FELLOW COLUMN



Mrs Anele Chirume is a PhD student in the Department of Records and Archives Management. She is currently enrolled with UNISA and her research is focusing on Information Provision to Caregivers and Special Needs.

She has many research interests and among these include: indigenous knowledge systems and dissemination of information on special needs groups such as the disabled. Mrs Chirume publishes in conference papers and she is also currently involved in a research project titled NUST ZIPRA (Zimbabwe People's Revolutionary Army) history project which she is doing in collaboration with the ZIPRA veterans trust.

Her research is funded by the NUST Research Board and her expected outcomes are for NUST to be the custodian of the ZIPRA history and

for the liberation heroes to have their stories told.

She is working on this project in collaboration with other people from her department and the National Archives, with a memorandum of understanding to collect the history of these liberation fighters.

The aim of this project is to record the history of the liberation struggle in books, documentaries and a film. Speaking to RIO, Mrs Chirume says, "it was not possible to get a film the time ZIPRA was established but we would want to make one now" which will be helpful in the dissemination of this information.

Mrs Chirume pointed out that having a blog for researchers would improve research collaborations. She would also like to see the research attitude at NUST being improved. "People often think research is something farfetched but it is also important." She mentioned that there are very few research enthusiasts at NUST and she wishes to see more being done. When asked about where she sees herself in the next ten years, Mrs Chirume says her wish is to have a mixture of academia and industry. "There is a gap that I have realised between the two. I would like to be in academia and affect the industry by my findings and not only doing research for publication" she said.



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EVENTS

Today, the 21st of September 2018 is the International Day of Peace, a day devoted to strengthening the ideals of peace - within and among nations and peoples. This year it's celebrated in honour of the right to peace for every person in the world. To mark the day we've put together this special newsletter highlighting a few previously published articles that analyse the state of peace in Africa.

The first article focuses on the prospects for peace in one of the continent's most troubled regions – the Horn of Africa. Martin Plaut examines the historic peace deal between Ethiopia and Eritrea, and its broader implications for stability. He writes that while developments between states in the region can't be understated, a great deal still needs to be done before there's sustained peace.

Another aspect of peace is how safe citizens feel in their communities and homes. One measure of this is the Gallup Law and Order index. But Guy Lamb questions its accuracy, arguing that global safety surveys can lead to wrong perceptions about crime and policing.

Peace is only possible if perpetrators of violence are brought to justice. Michelle Nel makes the case for Africa to leave the International Criminal Court and to build its own capabilities of holding perpetrators to account while Theo Neethling argues that the African Union must enter into strategic partnerships if it wants to guarantee the continent's peace and security in the long term.

Finally, Ylva Rodny-Gumede shifts the focus to the media, suggesting that African journalists can play a role in creating peaceful and non-violent elections.

Julius Maina

Regional Editor East Africa



Ethiopia's Prime Minister Abiy Ahmed (left) and Eritrea's President Isaias Afwerki re-opening the Eritrean embassy in Addis Ababa. EPA-EFE/Stringer



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PREVIEW

World Habitat Day

The United Nations has designated the **first Monday of October of every year as World Habitat Day**.

The theme for World Habitat Day 1 October 2018 is *Municipal Solid Waste Management*

The purpose of World Habitat Day is to reflect on the state of our towns and cities, and on the basic right of all to adequate shelter. It is also intended to remind the world that we all have the power and the responsibility to shape the future of our cities and towns.

World Habitat Day was established in 1985 by the United Nations General Assembly through Resolution 40/202, and was first celebrated in 1986.

Each year, World Habitat Day takes on a new theme to bring attention to UN-Habitat's mandate to promote sustainable development policies that ensure adequate shelter for all. This World Habitat Day will focus on promoting all levels of government and all relevant stakeholders to reflect on how to implement concrete initiatives to ensure adequate and affordable housing in the context of the implementation of the New Urban Agenda at all levels, as well as the achievement of the Sustainable Development Goals.

SOURCE: <https://unhabitat.org/world-habitat-day/>

World Cities Day

The United Nations General Assembly has designated the 31st of October as World Cities Day, by its [resolution 68/239](#). The Day is expected to greatly promote the international community's interest in global urbanization, push forward cooperation among countries in meeting opportunities and addressing challenges of urbanization, and contributing to sustainable urban development around the world

The general theme of World Cities Day is **Better City, Better Life**, while each year a different sub-theme is selected, to either promote successes of urbanization, or address specific challenges resulting from urbanization.

This year, the United Nations has selected the theme **Innovative Governance, Open Cities** to highlight the important role of urbanization as a source of global development and social inclusion SOURCE: <http://www.un.org/en/events/citiesday/>

World Statistics Day

This is the second World Statistics Day. This year's theme emphasizes the critical role of high-quality official statistical information in analysis and informed policy decision-making in support of sustainable development. It also reflects the importance of sustainable national statistical capacity to produce reliable and timely statistics and indicators measuring a country's progress.

The UN General Assembly decided with [resolution 69/282](#) to celebrate the day SOURCE: <http://www.un.org/en/events/statisticsday/>



UNITED NATIONS HOLIDAY CALENDAR



DAY	MONTH	EVENT
04	February	World Cancer Day
11	February	International Day of Girls and Women in Science
21	February	International Mother Language Day
03	March	World Wildlife Day
08	March	International Women's Day
21	March	International Day of Forests
22	March	World Water Day
21	April	World Creativity and Innovation Day
23	April	World Book and Copyright Day
25	April	World Malaria Day
26	April	World Intellectual Property Day
22	May	International Day for Biological Diversity
05	June	World Environment Day
27	June	Micro-, Small and Medium-Sized Enterprises Day
12	August	International Youth Day
02	October	World Habitat Day
20	October	World Statistics Day
31	October	World Cities Day
13-19	November	World Antibiotic Awareness Week
14	November	World Diabetes Day
20	November	Africa Industrialization Day
01	December	World AIDS Day