



FST Operations and **COVID-19**

FACULTY

- The Faculty smoothly pivoted online for the academic year 2020/21.
- Other activities clubs/societies, workshops, internships, etc., also moved online
- Departments were open every day, many offering limited work hours, manned by rostered staff.
- Protective screens were installed in departmental offices to offer further protection for staff.

CLASSES AND LABS

- Classes continued to be primarily online. Some departments have however extended their delivery of face-to-face lab sessions.
- Computing offering staffed virtual labs to assist students experiencing prolonged technical difficulties.
- · Final Examinations were also held online.

LIBRARY

- The Tablet/Laptop Loan scheme available from the Science and Engineering Branch Library (SEBL) was a big help for students in need.
- · Student spaces were offered in the basement of the Library.

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FST in Numbers*



\$301M

Grants



101

Publications



2527

Undergraduate Enrolment



90

Events



293

Graduate Enrolment



11

Upgrade Seminars Help us
Support and Sustain
Science

Contribute to the

FST Endowment Fund CURRENT TARGET J\$ 100 MILLION

Help us jump start the next SCIENTIFIC Revolution right here at The UWI Mona!

DONATE TODAY!

DIRECT DEPOSITS

National Commercial Bank (NCB)

The UWI Mona Branch

Acct# 401006753

CHEQUES

Make payable to

UWI Development & Endowment Fund

for further deposit to the FST account

For additional information,

email: elecia.myers@uwimona.edu.jm or fst@uwimona.edu.jm

call: (876) 977-1785

FST STUDENTS AWARDED

Graduating Class of 2020

The Faculty congratulates its 495 graduates. We wish them all the best in their endeavours.

FST Degrees Awarded 2019-2020						
Graduate Students						
Doctor of Philosophy	6					
Master of Philosophy	9					
Master of Science	44					
Graduate Diploma	2					
Undergraduate Students						
First Class Honours	37					
Second Class Honours (Upper Division)	151					
Second Class Honours (Lower Division)	142					
• Pass	104					
TOTAL	495					

FST Alumni send encouraging videos to 2020 graduates

FST Alumni send messages of encouragement to the FST Graduating Class of 2020. Video greetings were received from Dr. Sherene James-Williamson (Associate Dean, Undergraduate Matters), Dr. Preci Hamilton (FST class of 2006, Neurosurgeon, Cornwall Regional Hospital), The Hon. Pearnel Charles Jr (FST class of 1999, Government Minister, MP), Dr. Chenielle Delahaye-McKenzie (FST class of 2007, CEO, De La Enzie Essentials), Mr. Hank Williams (class of 2006, Deputy Commissioner General, Tax Administration, Jamaica), Mr. Nathaniel Christie (FST class of 2020, Data Analyst, NCB). Congrats class of 2020, well done!!.

Physics Honour Society

A Physics Honour Society event was held on November 13, 2020. Approximately 17 students participated in the first virtual hosting. The invited speaker was Mr. Sedley Michael McLaughlin who is a UWI Physics graduate, former President of the Society of Actuaries and co-founder of Trees that Feed Foundation.

Postgraduate Scholars

The Faculty congratulates eighteen graduate students (shown below) who were recipients of The UWI Postgraduate Scholarship Awards for 2020/2021. A virtual celebration was held to congratulate the awardees.

FST Postgraduate Scholars 2020/2021						
Name	Programme					
Bamikole, Bayode	MPhil Biotechnology					
Bowman, Tremaine	MPhil Marine Sciences					
Campbell, Gavin	PhD Environmental Biology					
De Freitas, Alexandra	MPhil Physics					
Doughorty, Kristinia	MPhil Geography					
Duscent, Candiece	PhD Environmental Biology					
Johnson, Junior	MPhil Chemistry					
Lindo, Shanique	MPhil Physics					
Mahabir, Aleem	MPhil Geography					
Miller, Sean	PhD Computer Science					
Miller, Toni-Ann	PhD Environmental Biology					
Morna, Dawin	MPhil Physics					
Murray, Fradian	PhD Botany					
Palmer, Sanchez	MPhil Physics					
Robertson, Tahjna I.	MPhil Chemistry					
Sterling, Lanceford H.	MPhil Applied Physics					
Williams, Dudley A.	PhD Applied Physics					
Williams, Racquel	PhD Botany					

Life Sciences Student Awards

Eight students have been inducted into the Life Sciences' Honour Society based on their academic performance in semester 2 of the 2019/2020 academic year. They are Kareen Barnett, Nikkayla Barnaby, Jeffery Morris, Nasya Jones and Paul Collins (who are first time inductees), and Matthew Rogers, Shelby Kerr and Truddi Clarke, who are being inducted for the second time.

FST STUDENTS AWARDED

FST Awards Ceremony 2021: A Grand Celebration

The second edition of the FST Virtual Awards Ceremony was held on March 25, 2021. Over 430 awards were presented to outstanding FST Undergraduate and Graduate students, Academic Staff, Technical, Administrative and Service Staff as well as affiliates in several categories.



The Keynote Speaker was Dr. Charah Watson, Executive Director (Acting) of the Scientific Research Council and FST Graduate.

The Faculty thanks all the parties who contributed to making the event a success.



Watch the entire ceremony on UWIMonaMedia at https://www.youtube.com/watch?v=TyUzDMJt9mw.

View the full list of awardees on the FST website.

Upgrade Seminars

MPhil Upgrade Seminars 2020/2021							
Candidate	Programme (MPhil)	Date	Research Area				
Princess Bell	Biotechnology	February 16, 2021	Cannabis sativa L. lines				
Alton Bodley	Computer Science	January 26, 2021	Resource optimization				
Marco-Dean Brown	Zoology	October 14, 2020	Angiostrongylus cantonensis				
Candice Charlton	Applied Physics	October 20, 2020	Bushfire variability and risk				
Rochelle Daley	Zoology	September 29, 2020	Sarcophagids (Flesh Flies)				
Kristinia Doughorty	Geography	December 17, 2020	Nutmeg agroecosystem in Grenada				
Nathalie Ennis-Palmer	Geography	March 2, 2021	Land Management and Protected Areas				
Jordan Freeman	Biotechnology	April 13, 2021	Ackee (Blighia sapida)				
Ricaldo Pryce	Chemistry	December 15, 2020	Terpenes and steroids				
Lance Scott	Geography	December 17, 2020	Climate risk and weather index insurance				
Chevaughn Witter	Biotechnology	May 5, 2021	Alcohol, Nicotine and Cannabis				

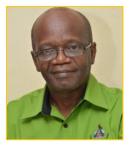
SCHOLARSHIPS AND BURSARIES

UWI Mona's Department of Chemistry Scholarship Fund to get \$1.6m boost

Kingston, Jamaica. September 16, 2020: More than \$1.6m will be injected into The Department of Chemistry's Scholarship and Awards Fund following contributions from a distinguished alumnus of the Department and several companies. The contributions were made through large purchases of two special publications: The Department of Chemistry, UWI, Mona and From Logwood to Slowpoke: a Biography of Professor Gerald Lalor.



Department of Computing Establishes The Ezra Mugisa Award



The Ezra Mugisa Award was introduced in the 2020/2021 academic year by the Department of Computing in honour of Dr. Ezra Mugisa. This Award is in recognition of Dr. Mugisa's outstanding contribution to the Department as well as to serve as a motivation to the students of Computer Science. Dr. Mugisa joined The UWI, Mona Campus in 1982 as a

Data Controller in the then Sub-Department of Computer Science and subsequently obtained his Ph.D. in Computer Science at Imperial College, University of London. He distinguished himself as an invaluable member of the Department of Mathematics and Computer Science and later the Department of Computing. He taught numerous courses at both the B.Sc. and M.Sc levels and served a number of terms as Head of the Computer Science Section and later as Head of the Department of Computing.

Dr. Mugisa retired from the University in 2018. The Ezra Mugisa Award will be presented to a second-year student with the best academic performance in Computing courses at second year. The recipient of this Award is the student with the highest average in first year, and Semester I of the second year Computing courses. The prize will come with a cash award.

FST Alum gives back with Math Scholarship

Starting in 2020 FST students pursuing a B.Sc degree with a major in Mathematics or Actuarial Science will have the opportunity to apply for the Norbert Fullerton Actuarial Scholarship. The person behind the scholarship is Norbert Fullerton - an FST Mathematics Alumni (class of '93) who is currently Head of Institutional Client Strategy, Europe, Middle East & Africa (EMEA) for Janus Henderson Investments.

Candice S. Charlton Physics Bursary: A Great Gift and a Powerful Example

During December 2020, the Candice S Charlton Foundation (CSC) handed over a bursary to the Department of Physics to help gifted, needy undergraduate students particularly during this year of the COVID-19 pandemic. What's extra special about this gift is that the foundation's director is still a graduate student pursuing her PhD in Applied Physics. The Faculty applauds this powerful example of giving it back. Ms. Charlton is a humble, hardworking graduate student who remembers her own financial struggles as an undergraduate physics student. She has decided that she does not need to wait to acquire great wealth to make a difference in the life of even one student. She had previously founded the Candice S Charlton Foundation (CSC Foundation) which is a Christ-centred organisation born from her own past financial struggles and passion for volunteerism. The Foundation's mandate and focus is offering leadership development seminars and bursaries to youth at their different education levels. Since its inception the foundation has adopted the Hope United Church of God Sunday School Department providing bursaries and stationery supplies to the students. In response to a call from the Department to staff and alumni requesting assistance for students in this particularly challenging period, the still young CSC Foundation decided to offer a bursary. The Candice S. Charlton Bursary will be awarded in the 2021-22 calendar year.

Undergraduate Prizes/Bursaries

The Department of Physics introduced new undergraduate Prizes/Bursaries. Successful applicants were Orane Green -Charlton Foundation Award, Terick Simpson - Physics Honour Society Award and Renee Gordon - Michael Neville McMorris Award.

SCHOLARSHIPS AND BURSARIES

Jamaican Professors Establish Scholarship Fund for FST Students



UWI alumna, Professor Pauline O. Lawrence and her husband Professor Carlton G. Davis, both Jamaican-born, have stepped up to establish a scholarship fund with US\$100,000 to provide scholarships to current and future UWI students pursuing agricultural related courses and the Life Sciences at Mona. The funds were handed over at a virtual ceremony on January 19, 2021 where both Professors were in attendance as well as officials from The UWI Mona.



Launch of National Baking Company Foundation STEM Scholarship Enhancement Fund/BOOST programme









The National Baking Company Foundation STEM Enhancement Scholarship Fund was established through Agreement with The University of the West Indies, Mona (Faculty of Science and Technology) and the National Baking Company Foundation in March 2021. The official Launch Ceremony was held on April 27, 2021.

The overall objective of the National Baking Company Foundation STEM Enhancement Scholarship Fund is to enhance STEM education in Jamaica by providing a continuous stream of quality science and mathematics teachers through an innovative 'back-end' incentivized scholarship programme that entails 'Building Out Our Science Teachers' (BOOST). It is anticipated that the programme will be implemented through a 6-year pilot, at an estimated cost of \$159,000,000.00.

The programme also has the objective of encouraging students to see giving back to their country as a noble and viable option at the beginning of their career. The initiative is being executed in collaboration with The UWI Mona's Faculty of Humanities and Education and The Mico University College. The first Cohort will be employed to Secondary schools in September 2021.

Caribbean Actuarial Scholarship

The Caribbean Actuarial Scholarship was established in 2008 in memory of Basil L. and Monica G. Virtue by their son-in-law, S. Michael McLaughlin, FSA, MAAA, an actuary who graduated from The UWI. The scholarship is intended to be an annual award to University of the West Indies (UWI) actuarial student(s) who demonstrate a strong record of accomplishment, leadership qualities and commitment to becoming an actuary.

FST Students Scholarship Opportunity

The Dr. Pauline O. Lawrence & Dr. Carlton G. Davis SCHOLARSHIP

Awarding US\$3000/year for 3 years to FST students* majoring in Life Sciences and/or Biochemistry

*Three (3) first year and four (4) second year undergraduate students and three(3) graduate students.

ELIGIBILITY

The award is available to students who:

- are Jamaican nationals;
- are registered in a full time Undergraduate Degree programme at Mona in the Faculty of Science and Technology.

CRITERIA

The award will be based on:

- high academic performance with at least a Grade Point Average (GPA) of 3.0 in the previous academic year
 - Note that in some cases, a student who shows promise but does not meet the 3.0 GPA as a result of extreme, verifiable extenuating circumstances may, at the discretion of the Administration, be considered for financial support
- verifiable financial need

METHOD OF SELECTION

Final selection is via an interview panel including members of The UWI and comprising a representative from the Faculty of Science and Technology. Selected students are required to write a letter to the donor each academic year outlining their overall progress in the programme.

HOW TO APPLY

- Visit https://www.mona.uwi.edu/osf/
- Click on APPLY NOW.
- 3. Complete the application form.
- Submit application form together with supporting documents.

STAFF MOVEMENTS

Dr. Donna Minott Kates new Head of Chemistry



The Faculty of Science and Technology welcomes Dr. Donna Minott Kates as the new Head of the Department of Chemistry. She takes over from Dr. Roy Porter who demits office after two successive terms. Dr. Minott Kates is currently a Senior Lecturer whose research specialization is the characterisation of food and foodstuffs that have a uniquely Jamaican identity.

Promotion to Administrative Officer



FST congratulates Mrs. Rosalene Simmonds on being promoted to the post of Administrative Officer for the Faculty of Science and Technology effective October 1, 2020.

FST Welcomes Dr. Chinthapalli Bhaskar Rao



Dr. Chinthapalli Bhaskar Rao holds a Ph.D. in Molecular Plant Physiology and Plant Biochemistry from University of Hyderabad (Hyderabad, India). He has extensive research and teaching experience from University of Missouri (Columbia), USA, Pudicherry Central University (Pudicherry, India) and Arba Minch University

(Ethiopia) in the field of Plant Biology and Plant Biotechnology for over more than 17 years. His expertise is in enzyme purification and regulation in C4 crop plants. His current research is focused on understanding the biotechnological aspects of plant-based foods and their processing. He has published more than 22 research papers and book chapters in both international and national journals. Presently, Dr. Rao is a Senior Lecturer in the Department of Life Sciences, Faculty of Science and Technology, University of the West Indies Mona. The Faculty welcomes Dr. Rao. We look forward to having him as part of the team!

Dr. Charles Grant promoted to Professor

FST extends congratulations to Charles Grant who was elevated to the Rank of Professor of Applied Nuclear Sciences at the September 2020 meeting of University Appointments Committee. Professor Grant is the Director General at International Centre for **Environmental and Nuclear Sciences** (ICENS) University of the West Indies.

Promotions to Senior Lecturer



FST congratulates Dr. Curtis Busby-Earle, Department of Computing on his promotion to Senior Lecturer. His research focuses software security and software engineering with particular interest in requirements engineering.



FST congratulates Dr. Daniel Fokum from the Department of Computing on his promotion to Senior Lecturer. His research interests include software-defined networking, sensor and wireless networks, information security, and computer science education.



FST congratulates Dr. Diptiranjan Behera from the Department of Mathematics on his promotion to Senior Lecturer. His research focuses on Interval and fuzzy mathematics, Structural analysis, Differential equations, Fractional differential equations, Non-linear differential equations, Optimization problem

and computational methods. The promotion takes effect August 1, 2021.



FST congratulates Dr. Peter Nelson from the Department of Chemistry on his promotion to Senior Lecturer. His research focuses on monolayers and surfactants, metal ions recognition, including membranes and crown ethers, and the theoretical studies of interactions between small molecules. The

promotion takes effect August 1, 2021.

SPECIAL WELCOME

Biotech Centre welcomes Honorary Professor Wesley Gray



The Faculty of Science and Technology welcomes Prof. Wesley Gray who has recently been appointed as Honorary Professor to the Biotechnology Centre. Prof. Gray is the Walter Dumas Endowed Professor of Environmental Toxicology at the Southern University of Baton Rouge (SUBR). He has been collaborating with the Centre in support of its research and academic objectives since 2016 through an MOU

agreement between UWI Mona and SUBR. The MOU resulted in the establishment of the SUBR-Mona Connect Program (SMCP) - an international program which includes sabbatical and faculty exchange visits, and a formal structure for reciprocal student exchanges. Prof. Gray's collaboration with the Centre has already resulted in joint research proposals submitted for funding, and access to SUBR resources for the Centre's graduate students. Professor Helen Asemota, Director of the UWI Biotechnology Centre, anticipates even greater collaboration and partnership with SUBR with Dr. Gray's appointment.

NPI welcomes new Research Fellow



Dr. William Irvine is a Structural Bioinformatician with a special interest in the use of molecular modelling and other computational tools to characterise the role of protein-membrane interactions in disease and to evaluate protein-ligand interactions on the path to drug discovery.

Dr. Irvine was born in Jamaica and attended Ardenne High School before migrating to the United

Kingdom. He obtained a BSc in Medical Biochemistry at Leeds University and subsequently migrated to New Zealand where he pursued an MSc and PhD in Computational Biochemistry.

He has recently returned to Jamaica and taken up the post of Research Fellow at the Natural Products Institute (NPI).

Successful end to 2020 UWI/New Fortress Jamaica Mathematics Olympiad

Though the COVID-19 pandemic brought an unexpected end to the 2020 UWI/New Fortress Jamaica Mathematics Olympiad midstream, the Department of Mathematics quickly pivoted and ensured Jamaica was able to field teams to two international Olympiad events. Based on local rounds already completed when the pandemic halted the staging, two Jamaican Mathematical Olympiad Teams were selected.

The first team consisted of: Karthik Purushotham (Hillel Academy), Jemoy Jarrett (Herbert Morrison Technical High School), Shellane Shettleworth (Montego Bay High School), and Aayush Jain (Ardenne High School) who participated in the XXII Central American and Caribbean Mathematical Olympiad (OMCC) from October 24-30. The OMCC is organized annually by the Panamanian Mathematical Olympiad and was held online for the first time. Participants were from 13 countries from Central America and the Caribbean. Jamaica has participated in the OMCC continuously since 2010 and continues to be the only English-speaking country participant. Congrats Team Jamaica!

Jamaica was also invited for the first time to participate in the Iberoamerican Mathematical Olympiad. The 2020 competition was the 35th edition of the OIM and featured teams from 23 countries. Jamaica became the first English-speaking country ever to compete. Team members were Kyle Pratt (Campion College), Jaheim Harris (St. Jago High School), Onoseze Ehikhametalor (Campion College), and Karthik Purushotham (Hillel Academy). At the competition, team member Jaheim Harris won an Honourable Mention. Congrats Jaheim and team! Jamaica's participation in both competitions was facilitated by Faculty members from the Department of Mathematics.

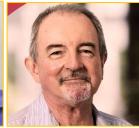
The Faculty is grateful to all sponsors of the 2020 Jamaica Mathematics Olympiad: New Fortress energy Company (title sponsors); The Caribbean Actuary Society, CIBC First Caribbean, KRYS Global, Actman International (Mr. St. Elmo Whyte) and The UWI, Mona.

SALUTING SERVICE

Four Retires from Life Sciences









Thank you: Dr. Jane Cohen, Dr. Eric Garraway, Dr. Eric Hyslop, and Mrs. Daphne Lowers.

Three members of the Department of Life Sciences academic staff retired from their post at the end of July 2020. They are (from left) Dr. Jane Cohen, Dr. Eric Garraway and Dr. Eric Hyslop. Mrs. Daphne Lowers also retired from her post as Chief Laboratory Attendant. We thank these staff members for their years of service to the Department.

Professor Mohammed Bakir Retires



Professor of Inorganic Chemistry, Mohammed Bakir, attained the age of retirement and as such retired from the Department on August 31, 2020. Prof. Bakir had been a member of the Department for more than twenty-five years.

Chemistry Celebrates Ms. Winnifred Worrell after 20 Years of Distinguished Service



Ms. Worrell retired from The University of the West Indies after 20 years of service. Ms. Winifred Worrell was first engaged to the UWI in August 1998 as a Departmental Attendant in the Chemistry Department. She became a permanent member of the Chemistry family in April 2001 and served faithfully until her retirement in January 2021. The Department of Chemistry fondly remembers Mrs Winnifred

Worrell as one whose presence brought love, light, life and laughter. Her cheerful demeanour made her offer everyone – whether staff or visitor - a warm greeting. She is also remembered for her diligence and professionalism and her willingness to lend a helping hand. In the words of the Department "Mrs Worrell treated all with respect and was well respected in return. Her quietly fashionable persona, her infectious laugh, her dependability and her love for, and commitment to, the Department and the University will be truly missed. Her retirement is leaving a void that will not be easily filled." On the occasion of her retirement, the Department of Chemistry and the Faculty salutes Mrs Winnifred Worrell on a job well done.

FST Celebrates Faithful Service: Newton 'Courtney' Lewis



If you have ever had to use the Inter-Faculty Lecture
Theatre (IFLT) on the Mona campus of The UWI then it's very likely that you met Mr. Newton 'Courtney' Lewis. He was the gentleman who always ensured that the IFLT opened and closed on time and

that all ran smoothly. All this he did with his characteristic smile and quiet efficiency. After 39 years, 4 months and 24 days, Newton 'Courtney' Lewis retired from The UWI at the end of July 2020. Not many can match that record of service. During his time at the University, he worked with the Estate Management Department and later the Dean's Office of the Faculty of Science and Technology.

Life Sciences Celebrates Mr. Windel Christie after 36 Years of Service



Mr. Windel Christie began his tenure with The University of the West Indies in May 1984 as an Agricultural Assistant with the Department of Life Sciences. Following this engagement, he was promoted to the position of Junior Laboratory Technician in 2005. Mr. Christie continued as a Junior Laboratory Technician until his retirement in February 2021. The Department remembers Mr. Christie as being knowledgeable and

efficient in the performance of his duties particularly those geared towards teaching and learning.

On the occasion of his retirement, the Department of Life Sciences and the Faculty wished Mr. Christie all the best in his endeavours.

SALUTING SERVICE



FST Staff Members receive Long Service Awards from The UWI Mona

The Faculty congratulates all members of staff who received Long Service Awards (2020) for serving The UWI, Mona Campus for periods exceeding 15, 21, 30 or 40 years. Due to the COVID-19 pandemic, the usual ceremony was not held, however recipients were able to collect their commemorative plaques at a photography session held in the Assembly Hall December 3-4, 2020.

15-years Recipients

Mr. David Anderson

Dr. Victor Douse

Mr. Copeland Gordon

Mr. Orane Innerarity

Mrs. Nadine McEwan

Dr. Henroy Scarlett

Mrs. Karlene Williams

(Chemistry)

(Physics)

(Life Sciences)

(Computing)

(Dean's Office)

(Chemistry)

(Life Sciences-PRML)

21-years Recipients

Mr. Winston Chambers

Ms. Daphne Cooper

Prof. Daniel Coore

Ms. Annmarie Hosang

Dr. Raymond Reid

Ms. Suzette Robinson

Prof. Michael Taylor

(Chemistry)

(Life Sciences)

(Computing)

(Life Sciences)

(Chemistry)

(Life Sciences)

(Dean's Office, FST)

30-years Recipients

Ms. Hillary Simms

Mrs. Miriam Lindo

Prof. Mona Webber

Dr. Samuel McDaniel

(Chemistry)

(Dean's Office, FST)

(Life Sciences)

(Mathematics)

40-years Recipient

Mr. Winston Smith (Chemistry)

FST Salutes Mrs. Lindo!



The Faculty of Science and Technology expresses its gratitude to Mrs. Miram Lindo for 30 years and seven months of outstanding service to the University. Mrs. Lindo began her tenure with the UWI in 1990 in the Office of Student Services. Over the years she received several promotions and by 2000 was transferred to the Department of Chemistry where she served as the Administrative Officer for eleven years. Her organizational skills and efficiency in execution of assigned tasks coupled with her strong managerial skills did not go unnoticed and by May 2011 she took up the post of Administrative Officer for the Faculty of Science and Technology. She served the Faculty faithfully up until her retirement on September 30, 2020. Mrs. Lindo's name became synonymous with the Faculty and her administrative leadership is responsible for many of the Faculty's achievements of the last decade. She was also a motivator and team builder and a passionate advocate and supporter of the Faculty's students.

The Faculty recognized her service at a small function held on September 29, 2020 where current and former Deans, Heads of Departments, colleagues and students paid tribute to Mrs. Lindo. FST will certainly miss her. We wish her well as she starts the next phase of her life journey. Walk good Mrs. Lindo... job well done!



FACULTY OF SCIENCE & TECHNOLOGY

FACULTY OF HUMANITIES & EDUCATION





NATIONAL BAKING COMPANY FOUNDATION

STEM ENHANCEMENT SCHOLARSHIP FUND



- 1. Jamaican Nationality
- Registered FST or FHE student in their final semester pursuing one of the following programmes:
 - BSc (science/math major)
 - BSc (science/math with education major)
 - BSc (science/math with education minor)
 - BEd (education with science/math major)
- 3. Degree GPA equal to or greater than 2.50

HOW TO APPLY

Submit applications with all required documents at: www.mona.uwi.edu/fst/nbcfboost-application-submission

Required Documents:

- Completed Application Form
- A recent Digital Photograph
- Unofficial Copy of Transcript
- Two Referee's Reports



ABOUT THE SCHOLARSHIP

The overall objective of the National Baking Company Foundation STEM Enhancement Scholarship Fund is to enhance STEM education in Jamaica by providing a continuous stream of auality science and mathematics teachers through an innovative 'back-end' incentivized scholarship programme that entails 'Building Out Our Science Teachers' (BOOST). The teaching experience will benefit the students by providing work experience, offering networking opportunities, and providing a rewarding experience for up to three years.

KEY BENEFITS:

- Guaranteed employment after graduation
- Scholarship Award valued JMD300,000
- Performance-based incentive valued JMD500,000

CONGRATULATIONS

Elected Student Representatives

The Faculty congratulates Ms. Danielle Mullings and Mr. Marcel Denny on being elected as the President, FST Guild Committee and President, Graduate Student Council respectively for the 2020-2021 academic year.

UWI Scientist To Co-Chair 2023 Global Sustainable Development Report Team

Professor John Agard, a leading scientist from the Department of Life Sciences at The University of the West Indies, St. Augustine Campus, has been appointed by UN Secretary-General, António Guterres to help draft the 2023 Global Sustainable Development Report.

Professor Kahwa is Chairman of newly launched Hazardous **Substance Reporting Authority**

Jamaica is the first country in the English-speaking Caribbean to establish a full regulatory body for radiation protection and safety. The Hazardous Substances Regulatory Authority (HSRA) had a hybrid virtual and live launch on Thursday October 29, 2020 at the Jamaica Pegasus Hotel in Kingston. Emeritus Professor Ishenkumba Kahwa (former Dean FST and former Deputy Principal, The UWI, Mona) is the first Chairman of the new entity.

Two FST Grads among Five 2020 **Fulbright Fellows**





FST congratulates Leaford Henderson (Department of Physics) (left) and Mario Christie (Department of Chemistry) who were among the five recipients of the Fulbright Scholarships for 2020.

FST Congratulates Professor Emerita Helen Jacobs and Professor Emeritus Ishenkumba Kahwa





Professor Helen Jacobs served The UWI for 32 years before retiring in 2019. She served as organic chemistry section head, departmental coordinator for graduate studies and for examinations, and Head of Department (2010-2014). Professor Kahwa officially concluded his time at the University of The West Indies on September 3, 2018, having served the University for 31 years spanning 1987 to 2018. He made significant contributions to the development of the Chemistry Department, Faculty of Science and Technology and The UWI on a whole.

FST Congratulates Dr. Henroy Scarlett



Dr. Henroy Scarlett was designated president-elect of the International Federation of Environmental Health (IFEH) in November 2020. Among his many accolades is that he served as Acting Coordinator of the BSc, MSc and PhD programmes in Occupational and Environmental Safety and Health (OESH) in the Department of Chemistry, UWI, Mona, from 2016 to 2020. FST extends sincerest congratulations.

Meet Dr. Orinthia Fisher-Howe



Dr. Orinthia Fisher-Howe is the Senior Administrative Assistant in the Department of Mathematics. She recently earned her Doctorate in Business Administration. The Faculty congratulates her wholeheartedly. Well done!

CONGRATULATIONS

Jacquél Johnson - Why Grandma Puts Her Bread in the Freezer



"Why Grandma Puts Her Bread in the Freezer" is the intriguing title of the awardwinning essay by Jacquél Johnson, MSc graduate student in Food and Agro-Processing Technologies. The essay won first place in the Food Science Toolbox Essay Writing Competition sponsored by Prof Courtney Simons, Associate Professor at Wright State University, USA.

To read why grandma puts her bread in the freezer, visit: https://cwsimons.com/why-does-grandma-put-her-bread-in-thefreezer/.

Dr. Robert Kinlocke appointed **Chairman of SAJE Property Services** Ltd



The Board of SAJE Property Services Limited has announced the appointment of Dr Robert Kinlocke Jr as its chairman. Dr. Kinlocke Jr is a lecturer in the Department of Geography and Geology at The University of the West Indies. He has considerable experience in urban planning and development, as well as certification from the Real Estate Board of Jamaica. He is also a director of SAJE Logistics Infrastructure Limited, PSC Limited, International Shipping Ltd and RK Logistics Limited.

FST's Danielle Mullings is the new **Guild President**



FST's Guild President Danielle Mullings (Computing Major) was elected the Guild President (2021-2022). FST is proud of her and wishes her the best.

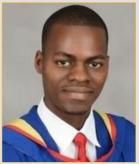
Professor Rupika Delgoda named a 2021 Sabga Laureate for Science



FST congratulates Prof. Rupika Delgoda (Director, Natural Products Institute) on being named among the 2021 Anthony N Sabga Caribbean Awardees for Excellence. She has been awarded for excellence in Science & Technology. Dr. Floyd Morris, also of The UWI, is also a 2021 awardee for Public & Civic

Contribution. The Sabga awards recognize significant Caribbean achievement in four areas - Arts & Letters, Science & Technology, Public & Civic Contributions and Entrepreneurship – and are meant to encourage and support the pursuit of excellence by Caribbean persons, for the benefit of the region. It is the most prestigious prize of its kind in the Caribbean. The full list of 2021 awardees are Arts & Letters: Ms Maria Nunes (Joint - Trinidad and Tobago); Mr Sean Sutherland (Joint - St Vincent); Entrepreneurship: Dr Guna Muppuri (Jamaica); Public & Civic Contributions: Dr Floyd Morris (Jamaica); Science & Technology: Professor Rupika Delgoda (Joint - Jamaica); Dr Ayanna Phillips Savage (Joint - Trinidad and Tobago). To read profiles on the 2021 Laureates: http://www.ansacaribbeanawards.com/.

FST Alumna receives Prime Minister's 2020 Youth Award for Academics



Dr. Daren Watson



Mr. Yekini Wallen-Bryan

Dr. Daren Watson and Mr. Yekini Wallen-Bryan were named 2020 Prime Minister's awardees at an online ceremony held on December 13, 2020. Daren was awarded in the category of Academics while Yekini was awarded in the category of Science and Technology for his contributions in using innovation to offer climate resilient solutions and providing support during the COVID-19 pandemic. Daren graduated from FST with a BSc in Environmental Physics and Mathematics (double major) with First Class Honours and later an MPhil in Physics. He has just completed his PhD in Mechanical Engineering at the University of Central Florida (UCF) and is starting a postdoc at their Fluids and Structures Laboratory. His PhD was facilitated by a Fulbright Fellowship. Yekini graduated from FST with a double Major in Electronics and Energy and Environmental Physics (Hons.) and is the CEO and founder of PreeLabs - An electronics and software company that focuses on developing and implementing automated solutions and remote monitoring and control applications primarily utilizing the Internet-of-Things.



FACULTY OF SCIENCE AND TECHNOLOGY www.mona.uwi.edu/fst/



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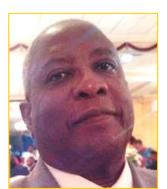




 $For more information on the {\tt BOOST}\ programme, please {\tt visit}\ www.mona.uwi.edu/fst/nbcfboost-programme$

FACULTY REMEMBERS

Professor Henry Ellis



The Faculty of Science and Technology mourned with the family and colleagues of Professor Ellis who passed away in November 2020. Professor Ellis joined the staff of The University of the West Indies, Mona in 1982 as a Lecturer in the Department of Chemistry. He was promoted to Senior Lecturer in 1987, and then to the rank of

Professor in 2011. Professor Ellis provided leadership as Head of the Physical Chemistry Section for some 21 years.

His distinguished record of original work in the area of liquid crystals, the thermal behaviour of soaps and in organic salts which are essential elements in the human diet, produced a number of publications in many international peer reviewed journals. He was a dedicated educator who supervised MSc and PhD candidates and taught within the chemistry programme across all four campuses of The UWI.

Ms. Yvonne Francis



Ms. Yvonne Francis. Chief Office Attendant in the Department of Mathematics passed away in January 2021. The University extends condolences to the family and friends of the late Ms. Francis.

Dr. Madge Greenfield



Dr. Madge Lane Greenfield, was a former Head of Department, Zoology as well as a former Deputy Dean of the Faculty. She passed away on February 18, 2021. The University extends condolences to the family and friends of the late Dr. Greenfield.

Ms. Abbrielle McCalla



The Faculty of Science and Technology mourned with the family of Abbrielle McCalla who passed away on Saturday, November 7, 2020. She was a first-year student, studying Geography & Geology. Our deepest condolences also go out to her first-year classmates from the FST family with whom she formed good relationships during the semester.

Mr. Trevor Ramikie



The Department of Chemistry notes with sadness the death of postgraduate student and former colleague, Mr. Trevor Ramikie. Mr. Ramikie was as an Adjunct Lecturer in the Occupational and **Environmental Safety and Health** (OESH) Programme in the Department of Chemistry, Faculty of Science and Technology for ten years, up to 2020. During this time,

he participated in the delivery and evaluation of six undergraduate courses. The OESH students benefitted from the industrial and regulatory experience that he brought to the programme, which greatly enriched their learning. In addition, for several years, Mr. Ramikie was a Laboratory Demonstrator in the undergraduate Analytical Chemistry and Chemical Process Principles courses in the Department of Chemistry, where he shared his practical knowledge and experience. Mr. Ramikie was a finalising doctoral student in the OESH Programme. His research topic, about which he was very passionate, was Childhood Lead Poisoning Prevention in Jamaica. He dedicated himself to understanding and disseminating findings about the occurrence, prevention and control of this important environmental hazard. He gave two oral presentations of his work at the International Federation of Environmental Health/Jamaica Association of Public Health Inspectors (IFEH/JAPHI) "One Health One Environment" Conference in 2018. In June 2020, he also published a peerreviewed article on his research in the International Journal of Environmental Monitoring and Analysis and was invited to join the journal as a member of the Editorial Board or as a reviewer. His PhD thesis was in an advanced stage of completion for examination at his untimely passing. The Department of Chemistry and the entire Faculty extends sincere condolences to Mr. Ramikie's family, friends, students and colleagues.

FACULTY ACTIVITIES

COVID-19 Virtual Fora



The Faculty of Science and Technology, the go to place for science knowledge, research and solutions joined the University in its effort to tackle COVID-19 in the areas of research and awareness. Between June and August 2020, the Faculty hosted four virtual fora with regional and international inputs from researchers as well as undergraduate and graduate students. Topics discussed included the environment, economy, education healthcare, natural products, telecommunication, data science, mask wearing, water and wastewater, geo-informatics and more. To view these presentations, please visit the links below.

Science in Action: Series 1 | Series 2 | Series 3 Related: COVID and the Environment: For Better or Worse?

Virtual Orientation Sessions

Undergraduate and Graduate Orientation Session were held between August 31 and September 4, 2020. The sessions were well supported by students and staff.

FST Graduate Student Handbook



The Faculty of Science and Technology for the first time has compiled a Graduate Student Handbook. This milestone achievement for the Faculty aims to improve the graduate experience by providing detailed information on, among other things, taught and research higher degree programmes offered within the Faculty. The programme requirements outlined in the Handbook are to be adhered to by 1) new students enrolling in the Faculty for the 2020-2021 academic year; and 2) students who have transferred into the Faculty for the 2020-2021 academic year.

FST Guild launches Sci Tech Guide

This year students in FST have an additional source of information on how to balance academia with other aspects of your life. This is because the FST Guild has launched a new Sci Tech Guide. The first edition of this student produced e-zine focuses on "Balance" and includes tips for getting started in FST, getting involved, building leadership skills, navigating hall life, and financial tips. It also contains helpful contacts for FST Administrators and student department representatives. Well done FST Guild!

FST Guild President presents at UN **General Assembly Side Event**



Digital Cooperation: Events during the High-Level Segment of the 75th United Nations General Assembly

15 Sep 2020 - 5 Oct 2020



The FST Guild President, Danielle Mullings, spoke at Transform Health's Harnessing the power of data and digital technology for health transformation in the COVID-19 recovery event at the UN General Assembly 2020. As the Caribbean and Americas representative on the Young Experts: Tech 4 Health global youth

council, she underscored the importance of engaging young people meaningfully in the decision-making processes and amplifying the voices of youth to promote health efforts in a digital age. Danielle spoke to a live audience of over 1000 healthcare professionals across the world, with the recordings amassing over 15,000 views. The panellists also included Dykki Settle, Chief Digital Officer; Director, Center of Digital and Data Excellence (CoDE) at PATH and Nicole Spieker, Quality Director and Director East Africa at PharmAccess Foundation.

CAPE Green Engineering Teacher Training

The Caribbean Examinations Council®, in partnership with the Department of Physics, the School of Education and the Faculty of Engineering at The University of the West Indies, hosted a threeday workshop under the theme "Strengthening Teacher Training in the Area of the CAPE® Green Engineering Syllabus". This project is an intervention of the Technical Assistance Programme for Sustainable Energy in the Caribbean (TAPSEC), co-funded by the European Union and the German Cooperation and supported by the Caribbean Community (CARICOM) Secretariat..

FACULTY ACTIVITIES

Physics Legacy Series

On August 17, 2020, the Physics Legacy Series was launched by the Departments of Physics. The series entail a look back at the Mona Physics journey from the inception of the University College in 1948 to the Department and Family we see today. The series feature The Department then and now; former Heads and members of staff; our contribution to laser research globally; and outstanding graduates.

View series: https://www.mona.uwi.edu/physics/legacy-series

FST Graduates stage successful STEM camp for kids







COVID did not prove a deterrent to FST graduates (from left) Leneka Rhoden, Norreka Morally and Norrisha Morally in their guest to increase the excitement of primary, prep and high school students around STEM. Utilizing their ingenuity, creativity and tech skills they successfully staged the e-Biome Summer of STEM Virtual Camp aimed at building STEM awareness and utilizing STEM principles as a means of developing critical thinking abilities. The camp catered to two age cohorts: 9-12 who formed the Wetland group and 13-17 who formed the Tropical Forest group. Additionally, the camp had three main areas of focus: EcoDiscovery, where students virtually explored land and aquatic ecosystems; MathDoc where students were creatively engaged in the world of Mathematics and Engineering: and TechWiz where students were introduced to robotics, coding, and animation. The camp concluded with a 1-week STEM Career Symposium in which campers interacted with STEM professionals including a Medical Doctor, Web Developer, Veterinarian, Engineer, Entomologist, and Botanist.

Life Sciences students need help to track Hammerhead Flatworm

Young scientists at The University of the West Indies' Department of Life Sciences had appealed to the public to report sightings of hammerhead flatworms as they continue research on the invasive species and other worms across Jamaica. Making the appeal on behalf of the researchers, Terrestrial Biologist Damion Whyte told the Jamaica Observer on the weekend that the information will inform them of the number of species, where they are found in Jamaica, and what they are eating. View online

CHEMFEST 2020 – What a Reaction!

On Tuesday August 18, 2020 the Department of Chemistry hosted its first ever virtual Chemistry Festival on Zoom. The Festival hosted just over 100 students from around the world including participants from Jamaica, Guyana, Canada, Barbados, Nigeria and the Cayman Islands. The engaging activities included a presentation on the nature of science, demonstrations of childfriendly chemistry experiments using readily accessible items from the supermarket, hardware store, or pharmacy, chemistry simulations, and a guiz competition. Prof Melvin Pascal from Ohio State University also addressed the budding chemists.

UWI and Met Service Jamaica sign MOA for Weather Station

The University of the West Indies and the Meteorological Service Jamaica (MSJ) signed a Memorandum of Agreement on September 17, 2020, to enable the installation of an automatic weather station (AWS) on the Mona Campus. The initiative is part of the Integrated Management of the Yallahs and Hope River Watershed Management Areas Project towards improving the conservation and management of biodiversity and the provision of ecosystem services in the Yallahs River and Hope River watershed. The project is an agreement between the Government of Jamaica and the Inter-American Development Bank. Data from the AWS will feed directly into the MSJ's island network and also be utilized for research at The UWI. The MSJ has had a longstanding cooperation with the Climate Studies Group Mona in the Department of Physics with collaboration on numerous matters of mutual benefit..

Study Skills Workshop

Through the Offices of Undergraduate Matters and Student Experience, a Study Skills workshop was hosted on October 8, 2020. The session was attended by approximately 120 students. View online

FirstGen Series

Spearheaded by the Student Experience Office, the first interview was conducted with Professor Donna Hope, author of the motivational book entitled "Chicken Back Gravy and Such Delights: Life Lessons from my Journey". She shared powerful insights with the listeners and encouraged the students, particularly those first in their families to attend University. View online

FACULTY ACTIVITIES

Thesis Writing Workshop



The Faculty hosted a virtual Thesis Writing workshop on Wednesday, October 21, 2020, for graduate students. The presenter, Dr. Sasekea Harris who is a Senior Librarian and Head of the Science and Engineering Branch Library gave a very informative and interactive presentation via

ZOOM covering several areas such as "About the UWI Mona Library ", "The Thesis Pre-submission Phase" and "Thesis Postsubmission phase". The workshop was well attended with one hundred (100) staff and students from across the Campus. The Faculty expressed its gratitude to Dr. Harris for sharing her expertise and making herself available for consultation. View online

Donation of Laptops

Through the Chemistry Department, three laptops were donated to FST students by Conrad Douglas and Associates. A handing over ceremony was conducted on November 4, 2020 with representatives from CD &A.

Virtual Workshop on Research and **Publication**



A virtual workshop on Research and Publication was held on November 5, 2020. The speakers for the session were Dr. Sasekea Harris (Head Librarian, Science and Engineering Branch Library) and Dr. Peter Nelson (Lecturer, Department of Chemistry). Dr. Harris spoke on the

various library services offered and how to gather information via various databases. While Dr. Nelson spoke on publishing guidelines and publishing data vs. literature review-based papers. The workshop was spearheaded by the FST Graduate Student Council.

View online

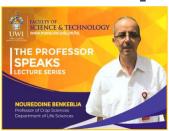
Goldman Sachs Virtual Session

On Thursday November 12, 2020, Goldman Sachs held a virtual Engineering Information Session to apprise students of the process of being interviewed for internships with the firm. About 27 students were present. The students also got a short guest talk from Nathan Downer, a 2020 graduate of the Department of Computing and a 2020 intern with Goldman Sachs.

Climate Change Workshop

The Department of Physics hosted a Climate Change Training and Capacity Building for NGOs/CBOs and Persons with Disabilities on October 23, 2020. The workshop was a key part of a project under the Global Environment Facility Community-based Adaptation funded by AusAID.

The Professor Speaks Lecture Series



The first of a series of lectures entitled, "The Professor Speaks" was held on Wednesday, October 28, 2020. Professor Noureddine Benkeblia, Professor of Crop Sciences in the Department of Life Sciences, delivered this lecture on the topic

"Metabolomics approach and deciphering postharvest deterioration of fresh Crops: From the ordinary to the extraordinary."

View online

International Actuarial Association Session

Ms. Britta Hay (Department of Mathematics) worked in collaboration with the International Actuarial Association (IAA) and Actuaries Without Borders (AWB) to host sessions for the UWI Actuarial Society. Presentations covered study skills, opportunities after graduation, what to expect in the workplace, wider fields of actuarial study and ethics/professionalism.

Mathematical Olympiad

Jamaica was invited to participate in this year's Iberoamerican Mathematical Olympiad. The exams were held on November 16 -17, 2020. The competition was conducted virtually and took place in the Graduate room in the Mathematics Department. Sam McDaniel assisted with conducting the examinations. The team members were: Kyle Pratt (Campion College), Jaheim Harris (St. Jago High School), Onoseze Ehikhametalor (Campion College), Karthik Purushotham (Hillel Academy High School). The 2020 competition was the 35th edition of the OIM and featured teams from 23 countries. By participating this year, Jamaica became the first English-speaking country ever to compete. Jamaica placed 21st out of 23 countries, and Jaheim Harris won an Honourable Mention.

STAY CONNECTED



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FACULTY ACTIVITIES

Outstanding UWI Science Undergrads selected for 2020 Huawei programme

Huawei, has again partnered with The University of the West Indies, Mona for its 4th annual staging of the "Seeds for the Future" Programme. The five-day programme focused on Information Communication Technology (ICT) and preparation for the local ICT sector. The programme was hosted online from November 16-20. 2020. The programme's online opening ceremony took place virtually on November 16, 2020. Six students from the Faculty of Science and Technology (FST) and one from the Faculty of Engineering participated in the programme. The students were Daniel Jennings, Cargill Seiveright, Jheanel Brown, Swayne James, Phillip Llewellyn (Computing) and Malik Edwards (Physics) and Courtney-Ann Hanson (Faculty of Engineering).

Faculty Research Ethics Committee

The Mona Research Ethics Committee (MREC) has adopted an online submission and review system for all proposals that needed ethical approval. A virtual demonstration session was held on Wednesday, November 25, 2020 with Mrs. Elva Langott-Latham, from the MREC, who went through the online reviewing process with the Faculty Ethics committee. The members of the committee were guided through the use of the system. The committee employed that knowledge to review a proposal for the December meeting.

FST Technical and Service Staff Day

On November 26, 2020 the Faculty had its 3rd staging of Technical and Service Staff Day. The day's activities were well supported and included a virtual presentation, "Managing Your Finances during COVID and Beyond" delivered by EduCom Cooperative Credit Union, and the gifting of tokens and gift certificates to members of staff.

Prof. A. Anthony Chen: A Caribbean **Energy Icon**

Emeritus Professor Anthony Chen was featured in the CARICOM Energy Personality Series - an activity of CARICOM Energy Month 2020 in November. Read the full feature that traced Prof. Chen's pioneering contribution to the Caribbean energy landscape on the Faculty's website at https://www.mona.uwi.edu/fpas/prof-anthonychen-caribbean-energy-icon. To see others in the series, check out: https://energy.caricom.org/.

Landmark Caribbean Climate Report Launched

The State of the Caribbean Climate Report was launched on November 23, 2020. The SOCC report is a new landmark document produced by the Climate Studies Group, Mona of The University of the West Indies (UWI) in collaboration with the Caribbean Institute for Meteorology and Hydrology (CIMH, Barbados) and the Instituto de Meteorologia (INSMET, Cuba) which provides up to date knowledge on climate variability and change related specific to the Caribbean region. It is the first of its kind for the Caribbean region and represents a resource for Caribbean decision makers striving to build resilience.

More information available here.

Mental Health Intervention

A mental health intervention session for students was held on Thursday, November 26, 2020. It was organized by the Associate Dean for Student Experience. Mrs. Sharon Williams-Brown from The UWI Health Centre shared some useful tips to help students to cope with stress. Other contributors included Student Success Coaches, Undergraduate Coordinators, Associate Deans, and a representative from the FST Guild Committee.

Annual Career Fair

The Department of Mathematics held its Annual Career Fair virtually on Friday, November 27, 2020. The companies that participated were Jamaica Public Service, National Commercial Bank, Scotiabank, KRYS Global, FLOW, Symptai, Digicel, Port Authority and Massy United Insurance. Approximately 60 students participated in the Career Fair. Mock interviews were also held with students. The Department held a Pre-Career Fair talk on November 20, 2020 via Zoom with guest speakers Mr. Norbert Fullerton and Mr. Andrew Long, both Actuaries and past students of The UWI. The talk focused on the Actuarial Science profession and the path for students after graduation.

Community Engagement: Proposal Writing

The UWI DBML staff assisted the ALLOA Fishermen's Cooperative and the Farm Town farmers groups in writing proposals for an Ecotourism and Aquaponics project, respectively. The proposals were submitted to JSIF REDI 2.

FACULTY ACTIVITIES

UWI Paper Commended by WMO

The research paper entitled "Statistical downscaling of the North Atlantic tropical cyclone frequency and the amplified role of the Caribbean low-level jet in a warmer climate" was highlighted for its significance by the World Meteorological Organization (WMO) in its 2020 meeting report. (WMO decision document, 5.1/1). The paper was authored by Jhordanne Jones along with collaborators as a part of her MPhil while a student in the Department of Physics. Miss Jones is currently pursuing a PhD at Colorado State University on a Fulbright scholarship. She is expected to graduate in the summer of 2021 and has already secured a postdoctoral position with Professor Dan Chavas and his Climate and Extreme Weather group at Purdue University.

The Annual CAPE Workshops

The workshops were held from January 11-15, 2021, with all FST departments represented. For this virtual edition, there were approximately 5500 students from 86 schools in attendance.

FST Students Shine in Vincent Hosang Competition

Budding student entrepreneurs from various faculties at the University of the West Indies, Mona presented their business ideas in the finals of the Vincent HoSang UWI Venture Competition at Mona School of Business and Management on Friday, January 29, 2021. Among the winners where second place winner, CERES Laboratories, (Nkrumah Fong - FST Alum), a unique research company that focuses on new technology known as vehicular exhaust absorbers seeks to preserve the natural environment. Also copping two significant awards was team Mother Theresa Driving Academy, which won the JMMB Joan Duncan Award for Corporate Social Responsibility and the award for Digital Transformation. The business, co-owned and operated by Ms. Leneka Rhoden, (FST graduate student), has digitized all driver education needs, including applying for learner permits, acquiring educational materials and driving test preparation for Jamaican drivers' licenses.

The UWI Mona Net Zero Building

The UWI Mona houses the first Net Zero Energy Building (NZEB) in the Caribbean and one of the first in a tropical country. But what is a Net Zero Energy Building and what makes it so special? Check out this 12-minute video about UWI's NZEB and take a tour: https://www.youtube.com/watch?v=LEt2zQSDJNI.

Interfaculty Administrative Officers' Committee

Through the initiative of the Dean's Office, an Administrative Officers 'Committee' comprising of Administrative Officers from the other faculties and Western Jamaica Campus was formally established. The first meeting was held on December 14, 2020.

Members of Faculty Board

With the approval of the Dean M. Taylor, all FST Senior Administrators in each Department/Centre Institute have been invited to attend as observers to Faculty Board.

CMS and DBML Staff plant Mangroves for World Wetlands







Wetlands Day activities celebrated on February 2, 2021. The area has been threatened by erosion and the mangroves with their unique rooting system will hold the rocks in the revetment and produce a more long-lasting solution. Furthermore, the mangrove wetland area will support biodiversity. Wetlands are land areas that are saturated or flooded with water from land or sea; permanently or seasonally. Inland wetlands include marshes, ponds, lakes, fens, rivers, floodplains, and swamps. Coastal wetlands include saltwater marshes, estuaries, mangroves, coastal lagoons and even coral reefs.

FACULTY ACTIVITIES

UWI Science: Rehabilitating Coastal Ecosystems as a way to Climate Resilience



In a TEDxWorthington talk, Professor Mona Webber makes it clear that that rehabilitating coastal ecosystems is one way of building climate resilience for countries like Jamaica. She shares how innovative UWI research on replanting, restoring and protecting mangroves, seagrasses, and coral reefs is helping to achieve this. Hear why a holistic

approach to 're-greening' the earth with special attention to our coastal resources is the way to go.

Watch online: https://youtu.be/IW8teLcGaTE

CCRIF Provides Support for UWI Developed Tools for Addressing Climate Change Impacts

CCRIF SPC (Caribbean Catastrophe Risk Insurance Facility, SPC) has provided a grant to the UWI Climate Studies Group Mona (GSGM) located in the Department of Physics, under the CCRIF-UWI MOU to upgrade three software tools developed by the CSGM. These tools have been designed to assess and address the impacts of climate change. The tools are: (i) Simple Model for Advection of Storms and Hurricanes (SMASH) (ii) Agricultural Climate Change Evaluation for Production, Transformation and Resilience Building (ACCEPT) Agri portal, and (iii) The Real Time Monitoring System (RealTMS) for Water Quality. These tools have significant potential to support evidence-based decision making within the disaster management, agriculture and water sectors, leading to improved climate resilience. The CCRIF support will also support capacity building and use of the tools by regional stakeholders.

UWI FST/Field Trip Opens 'World-First' Mushroom Research Lab



The Canadian company Field Trip Ventures Inc., a world leading integrated company in legal psychedelics and psychedelicassisted psychotherapy has partnered with The University of the West Indies, Mona, Jamaica (UWI)

through the Faculty to create a research and cultivation facility. The 'Field Trip Natural Products (Ja) Limited Research and Development Laboratory' was formally launched on Tuesday, February 9, 2021. The Lab, located in FST at The UWI Mona, is the world's first legal research and cultivation facility dedicated exclusively to psilocybinproducing mushrooms and other plant-based psychedelics.

To read more about the launch and the lab:

https://www.loopjamaica.com/content/uwi-mona-partners-mushroomresearch-firm-field-trip-ventures

To read about the partnership: https://jamaicans.com/jamaicalaunches-the-world-magic-mushroom-center/.







FACULTY ACTIVITIES

The UWI, Mona Analytical Chemistry (MAC) Laboratory Accreditation

The Faculty congratulates the Department of Chemistry for the continuation of accreditation to the ISO/IEC 17025:2017 standard for The UWI MAC Laboratory.

Science for Today Forum: Caribbean must also commit to less GHGs emissions!



Dr. Victor López López delivered a Virtual Lecture entitled "Climate Change Phenomenon for Caribbean Countries" jointly hosted by the Faculty of Science and Technology (The UWI Mona), the Latin American Caribbean Centre of The UWI and the Embassy of Mexico (Jamaica). The Lecture was held on March 18, 2021 and

was moderated by Dr. Sherene James-Williamson, Senior Lecturer and Associate Dean in the Faculty of Science and Technology. It also featured remarks by Dr. David Smith, Director of the Institute for Sustainable Development (UWI), Señor Juan Jose Gonzalez Mijares, Ambassador of Mexico to Jamaica and Ambassador Gillian Bristol who is Director of the Latin America-Caribbean Centre.

View here:

https://www.facebook.com/1092567170812001/videos/1099834113 825605.

The UWI & Farmingdale State College Host Int'l Renewable Energy Conference

The University of West Indies and Farmingdale State College's Renewable Energy & Sustainability Center (State University of New York, USA) are remotely hosting the 9th annual International Energy & Sustainability Conference, March 18-19, 2021. This year's conference provides attendees with the cutting- edge developments in renewable energy from leaders in their respective fields. Experts in research and industry will present the emerging technologies and future directions in their field. Due to the generosity of sponsors, the registration for the conference is free of charge.

More information:

https://www.farmingdale.edu/resc/iesc_2021/iesc_2021_home_pag e.shtml.

Science for Today Landslide Forum **Emphasizes Utilizing Science & Enforcement**

The 13th FST "Science for Today" Forum examining "Landslides, Infrastructure & Housing Construction" was held on Wednesday, March 3, 2021. Presenters were Professor Simon Mitchell, Professor of Sedimentary Geology, Department of Geography & Geology; Mr. Canute Ricketts, Director, Research and Mapping Unit, Mines & Geology Division of the Ministry of Transport & Mining, Ms Diana McPherson, Senior Planner at the National Environment & Planning Agency and Dr Wayne Reid, Civil Engineer at Jentech Consultants Ltd. With the recent Gordon Town (Jamaica) landslide as backdrop, the discussions centered on using scientific knowledge and expertise to guide construction and enforcing guidelines and laws to ensure public safety.

Talk summary: https://www.mona.uwi.edu/fst/fst-landslide-forumsummary.

View here: https://www.youtube.com/watch?v=v4SNwySIAHk

FST Recognises World Meteorological Day March 23, 2021

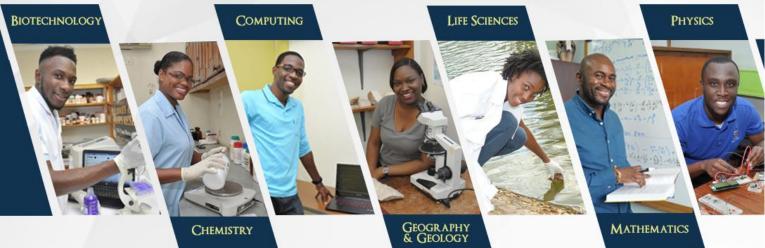
World Meteorological Day (WMD) is celebrated every year to attract the attention of the world towards the changes in the weather and climate of the Earth for the safety and wellbeing of society. The theme for this year is "The Ocean, our climate and weather" in conjunction with launch of the United Nations Decade of Ocean Science for Sustainable Development (2021-2030). The theme celebrates World Meteorological Organization's (WMO's) focus in connecting the ocean, climate and weather within the Earth System. The Decade galvanizes efforts to gather ocean science - through innovative and transformative ideas - as the basis of information to support sustainable development. When it comes to the weather and climate, most of us think only about what is happening in the atmosphere. If we ignore the ocean, however, we miss a big piece of the picture (Read more).

In recognising WMD, the Climate Studies Group Mona (CSGM) through its partnership with the Meteorological Service Jamaica and the Planning Institute of Jamaica (PIOJ) hosted the launch of the new Automatic Weather Station recently installed at The University of West Indies, Mona. The launch included a symbolic ribbon cutting and introduce a platform for accessing near real time meteorological data for decision-making.



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The Assistant Registrar, Office of Graduate Studies & Research,

The University of the West Indies, Mona Campus Kingston 7, Jamaica.

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Plant Production & Protection

Renewable Energy Mnagement

Mathematics

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Natural Resource Management

Occupational and Environmental Safety & Health

Plant Production & Protection

Renewable Energy Management

Renewable Energy Technology

* Jointly offered with Mona School of Business and Management

FOR ADDITIONAL INFORMATION:



📞 876-977-1785 🛮 fst@uwimona.edu.jm 🏽 🎉 https://www.mona.uwi.edu/fst/programmes

Contact us:

FACULTY ACTIVITIES

The UWI Mona launches its AWS

At a virtual launch held on World Meteorological Day (March 23, 2021), The UWI Mona officially launched its Automatic Weather Station (AWS). The AWS, sited in the vicinity of The UWI Bowl, was installed under a Memorandum of Agreement between the UWI and the Meteorological Service of Jamaica (MSJ) and will become part of the MSJ's island wide network. The MSJ has a long-standing cooperation with the Climate Studies Group Mona (CSGM) in the Department of Physics. The station will additionally provide climate data for research purposes and will be the pilot for an innovative solution being spearheaded jointly by the CSGM and MSJ for electronic real-time data transmission. The installation was funded through a World Bank project being implemented under the Pilot Programme for Climate Resilience (PPCR) and being executed by the Planning Institute of Jamaica.

10 FST Students chosen for inaugural **CEMEX Campus Initiative**

Ten FST undergraduate and graduate students (Physics and Chemistry) are currently participating with peers from the Faculty of Engineering (The UWI Mona) and UTECH in the inaugural CEMEX Campus initiative. CEMEX Campus is an initiative of Carib Cement and their parent company CEMEX International which exposes enrolled University students to aspects of the Cement Industry. Topics being covered over the six weeks include Health & Safety, Aggregates, Cement Technology, Quality & Sustainability, Supply Chain and Social Impact. FST lecturers have also been invited to join in the virtual lectures. The programme will end with a tour of the Carib Cement plant. CEMEX Campus was officially launched on March 29, 2021. It is intended as an annual opportunity for FST students especially those majoring in Materials Science and Chemistry.

Science for Today Forum: Does Jamaica's Cyber Crimes Act impede best practices in security assurance?



In February 2021, it was discovered that sensitive data collected by the JamCovid App seemed to not have been properly secured and was exposed to public access on the Internet. Apart from the obvious question of whether the Government's procurement procedures provide adequate security assurance, the response of the Government to the disclosure of the breach seems to regard the discoverer of the breach as

potentially liable under the Jamaica Cyber Crimes Act. This response seems to have caused alarm among data security professionals (and students) because permitting (even encouraging) neutral 3rd parties to come forward with information on discovered vulnerabilities is an accepted component of providing security assurance, so that those vulnerabilities can be addressed, before they are exploited by bad actors. The FST Science for Today forum on March 24, 2021 discussed the degree to which this alarm is warranted, how cybersecurity professionals can operate in compliance with the Cyber Crimes Act, and how the Act might be amended to reduce the deterrent effect it currently has on good actors reporting cyber security incidents and vulnerabilities.

View here: https://www.youtube.com/watch?v=SJLP-NLgTwA.

STEAM Photography Competition

The Dean's Office, FST hosted a STEAM Photography Contest, 'Science in the Tropics', during February 2021. The competition was opened to all registered Undergraduate and Postgraduate students. Participants were required to submit a photograph of anything in nature that depicts science in their everyday lives and briefly describe the scientific concept or phenomena that was captured.

The Faculty congratulates the following winners of the FST STEAM Photography Competition, 'Science in the Tropics'.

- Mr. Kerk Henderson First Place (Portal of Time)
- Mr. Gavin Campbell Second Place (Ostracoda)
- Mr. Jonathan Morris Third Place and Instagram Viewers' Choice Awardee (Night Sounds)



FACULTY ACTIVITIES

Math-MSBM Programme among top **Global Masters Programmes**

In a release in April 2021, the Mona School of Business and Management (MSBM) indicated that the Enterprise Risk Management programme, run in partnership with the Department of Mathematics, was named as one of eight MSBM graduate programmes receiving significant ranking in the 2021 Eduniversal Ranking of "the best Masters and MBA Programmes in 50 fields of study worldwide". The Enterprise Risk Management Masters programme received a Top 100 - Global Ranking; being ranked No. 42 in the Insurance, Risk & Actuarial Sciences category, Worldwide.

FST joins The UWI in acknowledging its Admin Professionals

Administrative Professionals' Day was celebrated by the FST on Wednesday, April 21, 2021 under the theme, " Administrative Professionals: Navigating Beyond Barriers". The Faculty collectively paused to acknowledge and express appreciation for the hard work of its administrative team spread across its various Departments, Centres and Institutes. The wider University joined in the recognition via a jointly staged virtual programme. The programme included expressions of gratitude from the Campus Registrar, Dr. Donovan Stanberry and the Chair, Campus Council of Deans, Prof. David Tennant followed by a presentation by the National Housing Trust (NHT) on "Opportunities for Home Ownership". Mr. Jahwanza Hall and Ms. Camesha Samuels of the NHT gave an informative and well received presentation and fielded questions from participants. Administrative staff within the FST received tokens from the Faculty Office and their respective Heads of Departments. Administrative staff at all levels agreed that they felt appreciated, energized and mobilized by the efforts made to recognize them.

FST Celebrates Teachers' Day

Teachers' Day was celebrated on May 5, 2021. Messages of appreciation from Principal Dale Webber, FST Guild of Students and Dean Michael Taylor were circulated to the FST Academics. Additionally, the Faculty Office expressed its appreciation to all FST Academics by gifting mason jars and canisters filled with sweet treats, nuts and teas. The messages and gifts were well received.

Guild Activities

Participation in the National Tree Planting Day 2020

Members from the FSTGC and the FST planted trees throughout the faculty on National Tree Planting Day. Tree suckers were collected from the Forestry Department, free of cost.

Balancing Acts: Resume Writing, Time Management and Study Tips Workshop

The Workshop focused on resume writing skills as well as time management and study tips essential for the online learning.

Mentorship launch and training session

Held on October 15, 2020, students were reminded about the importance of being a mentor or mentee. For the training session, videos were compiled with important information needed to guide successful mentors.

Norus Technologies Job Opportunities

In October, Norus Technologies reached out to the Faculty Guild President, Danielle Mullings, regarding job opportunities in Web Development for students. The information was passed on to the Computing Subcommittee and disseminated to the student body. Norus Technologies offered temporary jobs to two students .

The Launch of the shared Google Drive

The Google Drive link was officially distributed on October 26, 2020 via WhatsApp to groups consisting of students at all levels. The drive will be continuously updated with additional information.

Coordination of the FST Regional Inter-clubbing

Assisted with coordination of a regional inter-clubbing event between the three UWI Campuses (Cave Hill, St. Augustine and Mona).

Donations for Student Relief Fund

FSTGC sought sponsors for the student relief fund. Monetary contributions have since been obtained from Seprod. The committee intends to provide one laptop and data plans to students to aid in distance learning.

Hidden Gems Booklet and Video

A virtual guide highlighting hidden resources (hidden gems) accessible to students, the publication is filled with various tools, applications and websites all available to students for free.

Spread Love

Using an interactive encouragement board on Pallet, this initiative provided information on mental health and mental disorders.

Website Launch by the PRO Subcommittee

The FSTGC Website was officially launched on November 11, 2020. There were 50 newsletter signups from 340 visits.

Mathematics Subcommittee School Visitation Initiative

Degree talk sessions were held on November 19, 26 and 27, 2020 with Campion College, St. Jago High School and The Convent of Mercy Academy (Alpha) respectively.

RESEARCH AWARDS

FST Congratulates Principal's Research Awardees 2020

Research is one of the fundamental drivers of any successful society. Accordingly, the FST strives to contribute to improving the overall outlook and development of the region by producing solution driven research. This has contributed to the Faculty developing a reputation for producing quality research over the years. The Faculty therefore extends congratulations to all members of staff who were recipients of the Principal's Research Day Awards 2020 in recognition of their significant research outputs during the 2019/2020 academic year.

Outstanding FST Researchers

BEST RESEARCH PUBLICATION

Characterization of microplastics in the surface Research Title:

waters of Kingston Harbour, Jamaica.

Researchers: Prof. Mona Webber (Centre for Marine Sciences)

Ms. Deanna Rose (ICENS)

BEST RESEARCH PUBLICATION

Bioaccumulation of cadmium in potato tuber grown Research Title:

on naturally high levels cadmium soils in Jamaica.

Researchers: Prof. Mitko Voutchkov (Dept. of Physics)

> Prof. Noureddine Benkeblia (Dept. of Life Sciences) Mr. Da-Vaugh Sanderson (Dept. of Physics)

BEST RESEARCH PUBLICATION

Research Title: The use of Raman Spectroscopy to monitor phase

changes in concrete following high temperature

exposure.

Researcher: Dr. Tanya Kerr (Dept. of Physics)

BEST RESEARCH PUBLICATION (FMS)

Research Title: Use of public park for physical activity in the Caribbean:

evidence from a mixed methods study in Jamaica.

Researcher: Dr. Tamika Royal-Thomas (Dept. of Mathematics)

RESEARCH PROJECT WITH THE GREATEST **BUSINESS/ECONOMIC/DEVELOPMENT IMPACT**

Research Title: Assessment and Economic Valuation of Coastal

Protection Services Provided by Mangroves in Jamaica.

Researchers: Dr. Arpita Mandal Prof. Mona Webber

Dr. Rose-Ann Smith Ms. Patrice Francis Dr. Taneisha Edwards Mr. Camilo Trench

Dr. Robert Kinlocke (Centre for Marine Sciences)

Prof. Simon Mitchell Dr. Adrian Spence

(Dept. of Geography & (ICENS)

Geology)

RESEARCH PROJECT ATTRACTING MOST FUNDS

Research Title: **Resilience Strengthening to Climate Change Impacts**

through Youth Education in Primary Schools.

Researchers: Prof. Michael Taylor

Dr. Tannecia Stephenson Dr. Dale Rankine Dr. Kimberly Stephenson (Dept. of Physics)

Dr. Sharon Bramwell-Lalor (FHE) Dr. Dennis Samuels (Estate Management) Mr. Patrick Lewis (Dept. of Life Sciences)

MOST OUTSTANDING RESEARCHER/RESEARCH ACTIVITY

Researcher: Dr. Andrea Goldson-Barnaby (Dept. of Chemistry)

Research Titles:

- 1. Biochemical properties of tree-ripened and post-harvest ripened Mangifera indica (cv. East Indian).
- 2. Anatomic features and antioxidant activity of cotton seed (Gossypium hirsutum L.) genotypes under different irrigation regimes.
- 3. Physiological traits and anatomic structures of the seed for two short cotton season genotypes (Gossypium hirsutum L.) under water stress.
- 4. Free radical scavenging capacity, carotenoid content and NMR characterization of Blighia sapida aril oil.
- Lauric acid composition of Cocos nucifera (coconut) oil.

Researcher: Dr. Venkateswara Penugonda (Dept. of Physics)

Research Titles:

- 1. Spectroscopic and electrical investigations of copper ions in PbO-GeO2 glasses
- 2. Spectroscopic and thermal analysis of lead-free multipurpose radiation shielding glasses
- 3. Optical absorption and photoluminescence properties of vanadium ions in 'lithium-tungsten-borate' oxide glasses
- 4. Role of molybdenum ions in lead zinc phosphate glass system by means of dielectric studies
- 5. Analysis of red mud doped Bi2O3-B2O3-BaO glasses for application as glass solder in radiation shield repair using MCNPX simulation

Researcher: Dr. Peter Nelson (Dept. of Chemistry)

Research Titles:

- 1. A Theoretical assessment of the primary hydration shell formation for calcium pyrophosphate
- Spectroscopic, optical sensing and RedOx behaviour of 1, 5diphenylcarbazone
- 1H-indazoles from phenylhydrazienes: An Exploratory DFT study of a possible Intramolecular Evolutionary synthetic Route.
- Preparation and Properties of Some Ion Selective Membranes: A Review.

Upcoming Conferences



About the Conference

The conference will explore the relationships between people and plants in the context of eight of the seventeen United Nations Sustainable Development Goals: No Poverty, Zero Hunger, Good Health & Well-being, Gender, Climate Action, Life Below Water, Life on Land, Peace Justice and Strong Institutions.

For further details, including the registration information, please visit:

Website:

www.econbot.org/home/meetings/economic-botany-2022.html

Facebook page:

https://www.facebook.com/2022Jamai caEthnobiology







FORECAST 2022 is the first joint conference of the Science Faculties of The University of the West Indies (Cave Hill, Mona, St. Augustine) in collaboration with the University of Technology, Jamaica.

With the theme, "Science and Technology: a D.R.I.V.E.R. of transformation", the conference will highlight science and technology as a pillar for regional transformation through its provision of new thought, discourse and foundational knowledge and skills, as well as by driving innovation, entrepreneurship, and resilience in the pursuit of greater development.



a D.R.I.V.E.R. of transformation

DEVELOPMENT RESILIENCE INNOVATION VISION ENTREPRENEURSHIP RENEWAL



AUGUST 10-12, 2022

For more information > visit: forecastconference.org.jm email: forecastconference@uwimona.edu.jm



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