By Associate Professor (Dr) S. Bhagwant, Dean Faculty of Science

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SENIOR MANAGEMENT

The Vice Chancellor

Pro Vice Chancellor (Academia)

Pro Vice Chancellor (Planning & Resources)
Programmes

- Programmes – since creation:
  - Postgraduate Programmes: **887**
  - Undergraduate Degree Programmes offered: **10,331**
  - Undergraduate Diploma Programmes: **585**
  - Undergraduate Certificate Programmes: **629**
Research Areas – Awarded PhDs

- Marine Biology and Ecology
- Numerical Finance
- Mathematics Education
- Bioprocess Engineering
- Sustainable Textile Production.
- Occupational Psychology
- Computational Chemistry
- Education
- Artificial Intelligence
- Sustainable Product Development
- Educational Technologies
- Computer Science and Engineering

- Conservation and Evolutionary Biology
- Management
- Biomarkers, Immunopathology
- Food safety and Security
- Nanoscience
- Biopharmaceuticals
- Agricultural Insect Pests Control
- Molecular Nutrition.
- Business Process Management
- Communications
- Textile Chemistry
- Computational Physics
OCEAN ECONOMY & OPPORTUNITIES

- 2.3 Million km² EEZ
- Very high potential for development
- Sustainable Development of ocean resources
EXISTING & UPCOMING SECTORS

• **Existing sectors (10.8% GDP)**
  • Coastal Tourism & Marine Leisure Activities
  • Fisheries, Seafood Processing & Aquaculture
  • Seaport Related Activities

• **New Emerging sectors**
  • Marine Engineering, Deep Ocean Water Applications (DOWA), Seaport Related Activities, Naval Architecture, Ship Repairs, Coastal Engineering, Marine Renewable Energy
  • Seabed Exploration for Hydrocarbon & Minerals, Marine Services, Marine Pharmaceuticals
  • Maritime Law, Laws of the Sea, Marine Spatial Planning, Marine Insurance
  • Coastal And Ocean Resources, Ocean Productivity, Marine Biodiversity, Marine Ecology And Marine Conservation, Marine Pollution, Climate Change And Sea Level Rise
• **Programmes – UG & PG**
  • BSc Geomatics (including Hydrography)
  • BSc/MSc Marine Science
  • BSc/MSc – Aquaculture
  • MSc Coastal and Ocean Management

• **CPDs**
  • Sustainable Aquaculture; Climate change and Coastal Zone Management; Ocean Data Collection & Analysis; Coastal Engineering; Coastal and Ocean Resources; Coral Reefs and Diseases; GIS & Remote Sensing.

• **PhDs**
  • Bioindicators; Molluscs; Marine Pollution; Aquaculture; Laws of the Sea; Ocean Governance

• **Expertise of Academics**
  • Coral Reef; Marine Pollution; Marine Taxonomy; Remote Sensing & GIS; Fish Disease; Marine ICT; Aquaculture, immunopathology and biomarkers.
• **Regional Collaborations initiated:**

  • **University of Western Australia**
    • *(Workshops/Short Courses/PhD supervision)*
    • *Marine Science, Oceanography, Fisheries & Coastal Zone Management*

  • **Second Institute of Oceanography, State Oceanic Administration, China**
    • *(Research Vessel)*
    • *Marine Science, Oceanography & Fisheries, Hydrography*
    • *Research & PhD projects*
• Regional Collaborations initiated:

• ESRI South Africa (Pty) Ltd, South Africa
  • Geographical Information System – 100 ESRI Africa Universities Programme
  • Geomatics – including Remote Sensing Technology for Oceanography

• Indian Institute of Technology Madras, Chennai, India –
  • Short courses on Coastal Engineering
  • Workshop on Ocean Data Collection & Analysis
  • International Conference in Ocean Engineering, July 2019

MoUs
• Rhodes University, South Africa
• Council of Scientific and Industrial Research (NIO), India
• Earth Systems Science Organization (ESSO), Ministry of Earth Sciences, New Delhi, India
Role of IORAG

Promoting Economic Development through Training & Research
Ocean Economy – An Economic Driver for SIDS

High Income Economy by 2020s

- USD 200*
- USD 1,000
- USD 2,500
- USD 9,300

MONOCROP
INDUSTRIAL
SERVICES
INNOVATION DRIVEN
• Regional collaboration
  • Elearning platform
  • Mobility of Academics
  • Mobility of Students
  • Sharing of Laboratories
  • Financially supporting regional research projects
  • Organisation of annual events – Conferences/Symposium/Seminars
  • Encouraging joint publications – Books/Guidelines/Policy Briefs/Scientific Papers
AREAS in order of Priority – Short Term

- Marine Science including Aquaculture & Fisheries
- Oceanography
- Marine ICT
- Laws of the Sea
- Ocean Governance
- Ports & Shipping
- Marine Resources & Entrepreneurship
AREAS in order of Priority – Medium Term

- Bioprospecting
- Ocean Optics & Acoustics
- Marine Engineering
- Marine Surveying & Informatics
- Naval Architecture
- Marine Archaeology
- Maritime Trade & Finance
- Maritime Security
AREAS in order of Priority – Long Term

• Offshore Structures and Deepwater Technology
• Marine Foundations and Reclamation
• Marine Vehicles and Floating Systems
• Petroleum Engineering & Technology
• **Training programmes** – linked to development *(Entrepreneur skills)*

• **Innovation** – new species for Aquaculture

• **Sustainable Development** of Ocean Resources – A Must for long term prospects

• **Professionalise the sector** – From Artisanal Fisheries to Industrial Fisheries

• **Capacity Building across the Region** – to **promote regional collaboration**
Acknowledgements

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Thank you for your Attention