# SPACE EDUCATION IN MYANMAR



Dr. Kyi Thwin Associate Professor Myanmar Aerospace Engineering University Meikhtila, Union of Myanmar

### 1. INTRODUCTION

In Myanmar, the aviation technology was based on the experience of maintenance and overhaul of aircrafts &helicopters from Myanmar Air Force (since 1941) and Myanmar Airways (since 1948).

Between 1975 and 1980, some engineering students from Rangoon Institute of Technology (former name of YTU) had designed and constructed the gliders, powered glider and hovercraft for their B.E thesis. In 1991, the Aeronautical Engineering Department was established at Yangon Technological University (YTU) and the graduates were offered B.E (Aeronautical) degree in 1994. In 1997, this department was upgraded as Aerospace Engineering Department to study the space technology and application.

In accord with the chairman of State Peace and Development Council, Myanmar Aerospace Engineering University was established in February 15, 2002.



2. SPACE EDUCATION AND TRAINING COURSES

Ministry of Education,

In primary and high school level,

- <u>Subject</u> General Science
- Topics "The Earth and the Sky"
  - the Weather, Observing the Sun, the Moon and Stars,
    Wind, Changes of the Moon's shape, Temperature
    Changes
- <u>Topics</u> "The Space and the Weather"
  - Solar System and the Universe, Utilization of Space, Solar Energy and the Earth.

In higher education level, the postgraduate diploma and

training courses

Subject – Remote Sensing (RS)

– Geographic Information System (GIS)

Ministry of Science and Technology, Myanmar Aerospace Engineering University (MAEU).

<u>Department of Propulsion and Flight Vehicles</u> <u>Subject</u> – Aerospace Propulsion, Elements of Rocketry, Launch Vehicles, Rocket and Spacecraft Structure, Aeronautical Meteorology.

<u>Department of Avionics</u> <u>Subject</u> – Satellite Communication and Navigation System

<u>Department of Fuel and Propellant Engineering</u> <u>Subject</u> – Principles and Construction of Rocket Systems. Department of Space System Engineering

<u>Subject</u> – Orbital Mechanics, Spacecraft Dynamics, Remote Sensing and Astrophysics, Space Environmental, Space Power and Radiation Effect, Spacecraft Design, Thermal Contrast, Spacecraft Attitude Control.

Department of Electrical System and Instrumentation Engineering.

<u>Subject</u> – Spacecraft Power System.

<u>Remote Sensing and Data Processing Centre (RSDPC)</u> <u>Subject</u> – Postgraduate Diploma and Training Courses in RS & GIS. Ministry of Forestry

**The Forest Department** 

Training courses on,

<u>Topic</u> – RS & GIS for Watershed Management, Caravan Training Program on Utilization of RS & GIS for Forest Management

<u>University of Forestry</u> For M.Sc. (Forestry) Degree Class Subject – RS & GIS for Forest Management Ministry of Agriculture & Irrigation

<u>Department of settlement and Land Records</u> <u>Topic</u> - GIS Application course

<u>Department of Survey</u> <u>Topic</u> - Map Cartography Editing with TNTmips

<u>Department of Irrigation</u> <u>Topic</u> - Cartography, RS & GIS training course

### Ministry of Transport

Department of Meteorology and Hydrology

<u>Topics</u> - Satellite Meteorology, Application of RS and GIS on Flood Monitoring and Flood Plain Delineation, Application of RS techniques on Flood Plain Mapping, and Integrated Application of RS and GIS.

<u>Myanmar Maritime University</u> For Third Year B.E. (Port & Harbor) Class

Subject - Surveying and GIS

In Private Enterprises Training Courses on

<u>Topics</u> – Cartography, RS & GIS Training (SUN TAC TECHNOLOGIES CO.)

- The GIS Certificate Course & Workshop (MYANMAR CREDENT TECHNOLOGY CO. LTD.)
- -GIS Foundation Course, GIS Intermediate Courses, RS & Land Use Analysis (MYANMAR COMPUTER CO. LTD.)
- User Training of ER Map per Image Processing Course (GEOCOMP MYANMAR CO. LTD.)

#### **GENERAL DISCUSSION**

- Distribution of Knowledge on Space Technology in
  - Ministries as well as Private Enterprises
- In MAEU, Engineering Subjects Related with Aviation
  - Technology as well as Space Technology
- Activities of Water Boosted Rocket Competitions will
  - be held soon
- To Share the Information of Space Technology
  - Between APRSAF Participants



*Testing of water boosted rocket* – 1

# THANK YOU FOR YOUR ATTENTION.

