

# 2013 MATE International ROV Competition, Explorer Class

## CAETUS Company – Mansoura City, Egypt

### Company Specification

Mansoura University – Faculty of Engineering

The international competition is 6821 miles away from Egypt.



#### Standing (From left to right)

**Asmaa Raslan** (4<sup>th</sup> CSE, COO, Safety Officer, PR, Engineering consultant), **Eng. Hanaa Zein El-Dein** (Mentor), **Eng. Belal El-Naghy** (Mentor).

#### Sitting (From left to right)

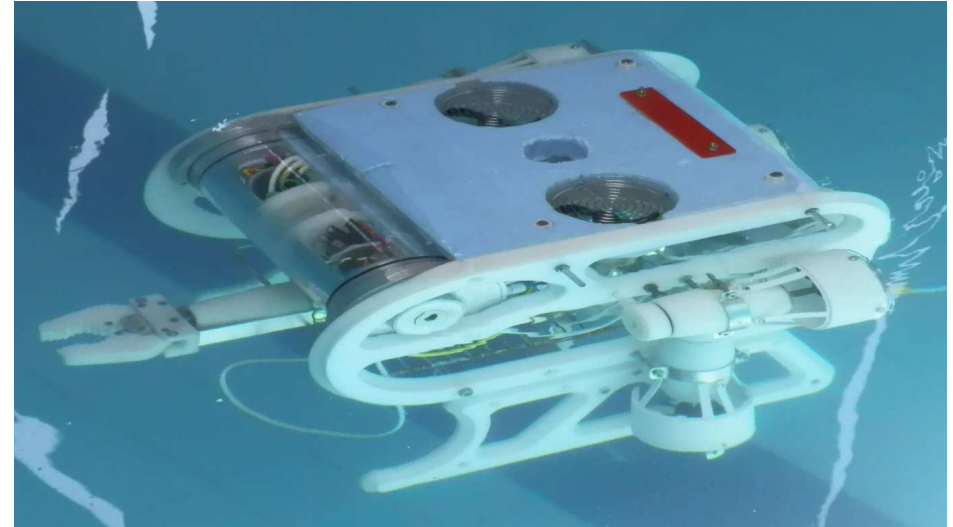
**Sameh Galal** (3<sup>rd</sup> ECE, Tether Man, Media, Electronics), **Amr Mohammed** (4<sup>th</sup> Mechanical Engineering, CEO, Pilot, Mechanical design and fabrication), **Mohammed Hamdy** (3<sup>rd</sup> ECE, CFO, Co-Pilot, Programmer).

**Eng. Amira Magdy** (Mentor), **Dr. Mohamed Abdel-Azim** (Mentor).

All company members participated last year except *Mohamed hamdy*. CAETUS won the first place in the Egypt regional and 16<sup>th</sup> in the 2012 international competition in Orlando, FL, USA.

### ROV Specification

#### ROV INFINITY



- **The development expenses of the vehicle** is \$1310.6.
- **The ROV consists from four main component groups:**
  - The structural skirts and extension are made of polyethylene, electronics container made of optically clear acrylic tube with two aluminum ends, and polyurethane foam bouncy.
- **Total weight in air:** 23 KG.
- **Dimensions:** The frame is 60 CM(L), 45 CM(W), 30 CM(H) and the extension is 50 CM(L), 45 CM(W), 15 CM(H).
- **Safety and special features:**
  - No sharp edges and completely shrouded thrusters.
  - Warning labels located near moving parts and electrical hazards, and safety rope.
  - 40A Main Fuse and 7A before each motor.
  - Kill-switch for emergency stoppage.
  - Stable and powerful control system mounted in a unique electronics container.
  - Powerful ROV GUI, and serial communication.