## *ABSTRACT*

*Electric Motor rocket or EDF rocket is new form of learning in field of rocket that developed by Lembaga Penerbangan dan Antariksa Nasional (LAPAN). Electric motor rocket takes advantage of motor rocket from electric ducted fan(EDF) or channeled fan with rotation of electric motor that substitute rocket fuel. Replacement booster rocket will evoke contra-rotating effect. Contra-rotating effect is* opposite rotation of rocket body to rotation rocket motor. *To control the effects, that is necessary control techniques such as active tail. The method that will applied is an active tail jet vanes method. Process control active tail require rocket attitude data which can obtained through sensoric component such as IMU sensor. To analysis of control was created, rocket attitude data will be sent via the radio signals at a frequency of 2.4 GHz using XBee-Pro module. Control activation process rocket will rely on long-distance remote control. The affiliation of all components will result a system that will overcome the effects of the contra-rotating so rotation speed of the rocket body will be nearly zero.*



*Keyword : electronic ducted fan, fan, contra-rotating*