

## **BRUNEI TEAM REPORT**



**Report done by:**  
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The team from Jefri Bolkih Engineering College of Kuala Belait or Maktab Kejuteraan Jefri Bolkih (MKJB) emerged as the champion in the ABU Robocon 2006 National contest after defeating Sultan Saiful Rijal Technical College at the Auditorium of Science College on Thursday 29 June 2006. With the effort, teamwork and strong spirit from all the team members and encouragement from our instructors, MKJB managed to complete the task of constructing twin towers with three pre-programmed robots and one manual robot in record time of 1 minute and 50 seconds. Being the champion, MKJB was very proud to be selected as the representative for Brunei Darussalam to join the Asia Pacific Broadcasting Union (ABU) Robot contest which was held in Kuala Lumpur.

To join the ABU Robocon competition was not easy. We were informed earlier that this would be a big competition and lots of things should be bear in mind. We had to follow our schedule from time to time. For me the most important part we should put in mind is that we had to work as a team, helping each other, full of strong spirit and have responsibility. We faced many difficulties through out the process of the robot-making but with the help and guidance from our instructors added with strong sprit among the team we managed to overcome all difficulties.

The major difficulty we faced was time consuming. We had very limited time. Besides working with the robot, we also had to attend classes in the morning till afternoon. We only start doing our project late in the evening (5 p.m) till mid-night. The preparation for ABU Robocon 2006 National contest began in early March and initially 12 students joined the team. Due to the limitation of time we had to work extra time during weekends and had to sacrifice our holidays. Because of these problems, five students quit and we were left with seven of us to continue with the project.

Before the competition, well-planned designs were discussed in terms of the mechanisms and strategies. Since we had very limited experience on building robots, we watched past ABU Robocon videos to learn and analyze on how the mechanisms work. From the videos, we got the ideas of what kind of mechanism we could use.

Sketching for the robot was done in the middle of March. We need to think the exact mechanisms for the robots we were going to build. For me and the team members, this was the hardest and most difficult job to do. Our team took days and days to work on this part. With the help of our instructors, we managed to complete our initial design. We started building the robots in the middle of March. We put off working with the robot for few weeks due to examination and when the exam was over we worked full time from 8 am till late mid-night. Although the work was tiring we enjoyed it very much.

Other big problems include the usual financial, fabrication of parts and obtaining the right materials or parts. It was a problem to us in making the mechanical parts including the shafts for the motor, the wheels and some parts of the robot. The team comprised only students from Instrumentation and Control Engineering. With the help from mechanical instructors we managed to proceed. It was very difficult to get parts or components for circuits because most of them are not available in Brunei. So to get all these things our instructor had to order from overseas through local agents.

The ABU Robocon 2006 was held in Kuala Lumpur from 8th to 12th September 2006 at Dewan Merdeka PWTC. The preliminary round was on the 10th September where all the competitors compete according to the groups which were balloted earlier. In the preliminary round MKJB played against China and in the second round we played against Malaysia 1 (MMU). Our opponent teams were both very strong and we lost in both games.

Indeed the ABU Robocon 2006 was very challenging and we were very amazed to see every country that took part in this competition presents very high standard and using new/modern technology in their robot. The ABU Robocon 2006 was very exciting and we were glad to be one of the countries that took part in this event. Although we didn't win in this competition, we were very proud to be the representative for Brunei Darussalam and we do hope that in future we will improve the quality and standard of our performance especially in producing high technology robot.

Through this competition we learnt lots of new things, shared and exchanged ideas among the participants and it also taught us how to discipline ourselves, obey rules, working as a team and had our own responsibility.

All the team members from MKJB Brunei Darussalam would like to congratulate Kuala Lumpur for making the ABU Robocon 2006 a success.

To any students/juniors who wish to join the ABU Robocon contest, they must be ready to accept great challenges and the most important thing is that they should be ready in all aspects ? mentally and physically, willing to sacrifice their time and never give up!