

Use of Akash – II tablet in education

Aakash tablet was launched in India by MHRD for educational use. In near future, Government of India plans to deploy Millions of these tablets amongst students, to enhance the effectiveness of their learning.

Aakash is now available in an enhanced version (Aakash-2) of the original tablet. It has a 1 GHz processor, 512 MB memory, 4GB portioned NAND flash, a capacitive touch screen. It runs the Android 4.0 Operating System. Future versions of the tablet will continue to have further enhancements. Under the National Mission on Education through Information and Communication Technologies (NME-ICT), IIT Bombay is conducting a project for empowerment of teachers using these tablets. Apart from the standard applications available on Android, several important educational applications and contents have been added by IIT Bombay. These are being distributed in Open Source.

Objective :

Give training to the students about the use and applications of Akash –II tablet.

For whom:

First year engineering students of all branches.

Contents :

1. Basic use of Akash – II tablet.
2. To learn Kingsoft-office application.
3. To learn interface device like Pen drive, PC, Camera with Akash – II.
4. To learn C, C++ programming using APL application.
5. To learn click application.
6. To content TV, Projector etc. with Akash – II using PTV tool.

Expected Outcomes:

1. Use of Akash-II instead of computer is one of the cost benefit solution.
2. Preparation of tablet base projects.

Mechatronics – I

Horizons of knowledge are expanding and only those Nations, which can master and command these emerging new technologies, can survive the market economy. India is an emerging marketing and engineering education is going to be an engine of growth to Indian economy with ability to generate more employment. Today we have more than 2,500 Engineering Colleges with an output of more than 700,000 students every year. However, The Industry Readiness Index survey 2013 indicates that only 10 per cent students are industry ready. If this picture is to be changed then we need to enrich our engineering education with new interdisciplinary technologies incorporated in the teaching pedagogy.

Contents :

1. Solar operated digital alarm clock.
2. Solar operated bird bell.
3. Solar operated 12 tune bell all time.
4. Water tank level controller.
5. All time welcome display.
6. Flashing light LED ornaments – star effect.
7. Flashing light LED ornaments – circle effect.
8. Flashing light LED ornaments – spiral effect.
9. Flashing light LED ornaments – square effect.
10. Catch burglar all time.
11. Clap – Clap switch.
12. Precision 2 range 555 timer.
13. Listening bug.
14. Light dimmer – for portable applications.
15. IC – 723 as voltage regulator.
16. Generating ideal power supply.
17. Quiz – master.
18. Infrared light beam alarm.
19. Ultrasonic movement detector really.
20. Timer with audible warning.
21. Time switch

Mechatronics – II

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For 3rd year engineering students will cover the hand on assembly and testing practical's using "Akash – II" I pad as display an monitoring device the use of solar energy to support these Akash – II system is also part of this particular workshop.

Contents :

Following Assembly and Testing Practical's are planned using Akash – II as Display Device.

1. Pressure Measurement.
2. Flow.
3. Temperature.
4. Body Temperature.
5. Blood Pressure Monitoring.
6. Vibration Detection and Measurement.
7. Water Tank Level Controller.
8. Human Interface and Bio Signals.
9. Force.
- 10.Distance.
- 11.DVM.