DEPARTMENT OF PHYSICS
SCHOOL OF MATHEMATICAL AND PHYSICAL SCIENCES
CENTRAL UNIVERSITY OF KERALA
(Established under the Central Universities Act 2009)
www.cukerala.ac.in

Minutes of the Meeting: PG Board of Studies

29.07.2016

Members Present:

1. Professor K J Thomas (Chairman)
2. Professor P. Kolandaivel, Bharathiar University
3. Dr. Alok Sharan, Pondicherry University
4. Dr. Vincent Mathews
5. Vijay Shenoy, IISc, Bangalore (on Skype)

The meeting began at 11.00 AM on 29.07.2016 in the office of the Dean, SPS. The members of the board have discussed and deliberated on the content of the Programme Structure. After the deliberations, the Board of Studies has suggested some modifications to the existing syllabus. The modified programme structure is approved and enclosed herewith.

The programme structure with the modified syllabus will be in force for students admitted in 2016-17 academic year onwards.

Professor P. Kolandaivel

Dr. Alok Sharan

Dr. Vincent Mathew

Professor K J Thomas

PHY5041 Basic Electronics for Scientists

Course Code	PHY5041	Semester	
Course Title	*Basic Electronics for Scientists*		
Credits	3	Type	Elective

Course Structure

Contents: Electrical current and Kirchhoff laws. Resistor, capacitors and inductors. Network analysis. Circuit analysis involving L,C, and R elements. Basic semiconductor physics, pn junction diodes. Diode circuits. Transistors and amplifiers. FETs, Operational amplifiers. Simple applications. Electronic systems. Feedback, oscillators. Transducers, signal conditioning and analysis.

Laboratory work will be associated with lectures which involves construction and building of circuits as well as simulation of circuits using software.

Suggested Books

1. Horowitz and Hill, Art of Electronics, Cambridge (2008)
2. Niel Storey, Electronics, Systems Approach, Prentice Hall (2009)
3. D. L. Eggleston, Basic Electronics for Scientists and Engineering, Cambridge (2011)