

BHARATI VIDYAPEETH UNIVERSITY, PUNE (INDIA)

Reaccredited with 'A' Grade by NAAC



VALUE ADDED COURSE Internet of Things

INFORMATION BROCHURE-2020-21

About the Institute



Dr. S. B. Sawant Director, AKIMSS, Solapur

Abhijit Kadam Institute of Management and Social Sciences is a premier leading institute of Western Maharashtra, located at Solapur. The institute is approved by AICTE, recognized by UGC and functions under the umbrella of Bharati Vidyapeeth (Deemed to be University), Pune. It has a well-established history and is proud of its academic reputation. Having been set up in 1981, AKIMSS has emerged as a citadel of learning and research with a symbiotic relationship with the world of business and industry.

The institute creates an environment within which actionable learning takes place and thus it provides the breeding ground for managerial leadership of the future.

The institute presently offers two post graduate programmes (MBA and MCA) and two under graduate programmes (BBA and BCA).



The institute has excellent full time faculty members with proven track records and a group of visiting faculty members who bring the experience of real world to classroom discussion. Specialist scholars come and deliver lectures enabling the student to expand their horizons of *gyan* (knowledge), *buddhi* (intelligence) and *vivek* (the consciousness to discern).

Programme Offered

The institute offers following programmes.

| Sr. No. | Programme | Duration | Semesters | Intake Capacity |
|------------|-----------|-------------|-----------|-----------------|
| 1. | MBA | Two Years | Four | 60 |
| 2. | MCA | Two Years | Four | 30 |
| 3. | BBA | Three Years | Six | 180 |
| 4. | BCA | Three Years | Six | 120 |

Salient Features

- Category I Deemed to be University; Graded by UGC
- Re-accreditation with 'A+' Grade by NAAC
- Approved by All India Council for Technical Education (AICTE), New Delhi
- Ph.D. Centre under the Faculty of Management Studies
- Life Member of Association of Indian Management Schools (AIMS)
- State-of-the-Art Infrastructure
- Wi–Fi enabled Campus
- Qualified and dedicated Faculty Members
- Corporate Resource Center
- Excellent inputs for overall development of professional competencies and personality of the students.
- Placement Assistance Cell; Centralized Placement Cell at Pune
- Well-equipped library with more than 23000 books and subscription of 24 national and international Research Journals
- Facility of Online Research Journals (J-Gate, EBSCO, DELNET), NDLI, INFLIBNET resources and other Open Access Resources; more than 500 Management CD's; Night Reading Room Facility.
- Video-conferencing, Excellent Internet Laboratory, Computer Laboratory
- Sport Facility (Indoor and outdoor)
- NSS Wing, Tutor Word Group, Co-curricular and Extracurricular Activities
- In-house banking facility
- Registered Alumni Association

| Course Title : Internet of Things | | | | | | | | |
|-----------------------------------|---------|------------|-------|--|--|--|--|--|
| Type of Course | Credits | Evaluation | Marks | | | | | |
| Value Added | 02 | CCA | 100 | | | | | |

Course Objectives

• This course is designed to have students become acquainted with IoT security. Students will be able to understand Secure Bootstrapping for secure IoT system, and IoT System Security and TrustZone.

Course Outcomes:

- On the successful completion of this course a student/learner shall be able to apply the knowledge of theories and practices to avoid Cyber Crime while using IOTs.
- Learn to prevent Attacks against IoT
- Learn how to make TrustZone hardware architecture
- Learn how to make TrustZone software architectures

| Unit No | CONTENT | Total SESSIONS |
|---------|--|-------------------|
| 1 | Introduction to IoT – | 6 |
| | Understand different visions of the Internet of Things (IoT) paradigm | |
| | Understand the enabling technologies, their advantages and disadvantages | |
| | Understand different aspects of IoT security and privacy | |
| 2 | Attacks against IoT- | 6 |
| | Understand attacks against IoT system (hardware + | |
| | software) | |
| | Understand attacks against IoT network protocols | |
| | Understand attacks against industry IoT | |
| 3 | Secure Bootstrapping for secure IoT system - Understand | 6 |
| | trusted boot | |
| | Understand secure boot | |
| | Understand TPM and its usages | |
| 4 | Understand remote attestation | 6 |
| | • Understand tamper resistant/proof/response hardware and | |
| | its usage | |
| 5 | IoT System Security and TrustZone- | 6 |
| | Understand the system security | |
| | Understand TrustZone hardware architecture | |
| | Understand TrustZone software architectures | |

References Books:

- 1) IoT Security Issues by Alasdair Gilchrist, Released January 2017 Publisher(s): De Gruyter, ISBN: 9781501505621
- 2) Practical Internet of Things Security, Brian Russell and Drew Van Duren Packt publishing
- 3) Securing the internet of things, Li Da Xu and Shancang Li Syngress, Elsevier

MOOCs

1) https://swayam.gov.in

Evaluation Criteria (CCA)

Respective Institute evaluate the Student and Course completion Certificate given at Institute Level with Signature of (Course Co-ordinator and Director)

Certificate Specimen

