KRISHNA UNIVERSITY

BOARD OF STUDIES (BoS) – DEPARTMENT OF COMPUTER SCIENCE

MINUTES OF THE BOARD OF STUDIES MEETING

Agenda:

To discuss and approve the proposed **curriculum, course structure and syllabus forCertificate Courses**

- **Computer Applications**
- **Artificial Intelligence and Robotics**
- **Artificial Intelligence and Machine Learning**
- **Cybercrime and Cyber Security**
- **Data Analytics**

Members Present:

S. No.	Name	Designation	Role
1	Prof. R. Kiran Kumar	Dept. of Computer Science, Krishna University	Chairman
2	Smt. P. Durga Bhavani	HOD, Dept. of Computer Science, Nalanda Degree College, Vijayawada	Member
3	Kondapalli Ramkumar	HOD, Dept. of Electronics and Internet of Things, Nalanda Degree College, Vijayawada	Member
4	Bommareddy Sudheer Reddy	Lecturer, Dept. of Computer Science, Nalanda Degree College & PG Centre, Vijayawada	Member
5	Prof. P. Suresh Varma	Dept. of CSE, Adikavi Nannaya University, Rajahmundry	Member
6	Dr. M.H.M. Krishna Prasad	Dept. of CSE, JNTUK, Kakinada	Member
7	Prof. D. Lalitha Bhaskari	Dept. of CS & Systems Engineering, Andhra University	Member
8	Assoc. Prof. M. Babu Reddy	HOD, Dept. of Computer Science, Krishna University	Member

Proceedings

The meeting commenced with the Chairman welcoming all the members. The proposed curriculum and syllabi for the **Certificate courses** were placed before the Board for discussion and consideration.

The members discussed the proposed **course structure, syllabus , credits, teaching scheme, practical components, Course Outcomes and assessment pattern** of the above programmes. The members suggested that the curriculum should be practical, application-oriented and aligned with current technological and industry requirements.

Resolution

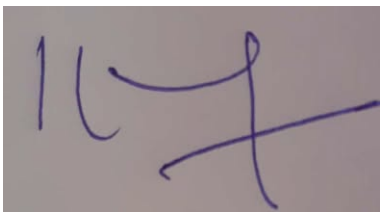
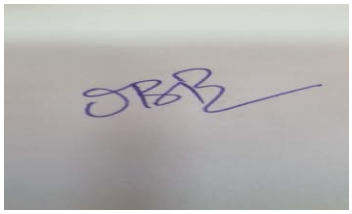
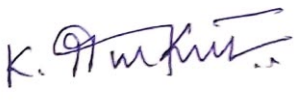
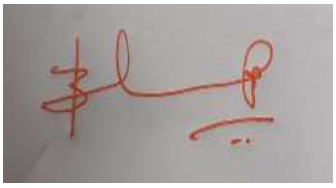
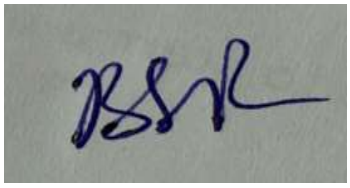
After detailed discussion, the **Board of Studies approved/recommended the proposed curriculum and syllabus** of the following Certificate courses:

1. **Computer Applications**
2. **Artificial Intelligence and Robotics**
3. **Artificial Intelligence and Machine Learning**
4. **Cybercrime and Cyber Security**
5. **Data Analytics**

The Board recommended that the curriculum, syllabus, Course Outcomes, credits, teaching scheme and assessment pattern be finalized by incorporating the suggestions of the members and submitted to the competent academic authority for approval and implementation.

Conclusion

The Chairman thanked all the members for their valuable suggestions and active participation. The meeting concluded with a vote of thanks.

Model Syllabus for UG Diploma in Cyber Crime & Cyber Security

COURSE STRUCTURE

Model Syllabus for Certificate Course in Cyber Crime And Cyber Security

Paper: Computer Networks

UNIT I: Fundamentals of Computer Networks

Introduction to Computer Networks • Introduction to Computer Networks • Types of Computer Networks (LAN, MAN, WAN, PAN) • Network Topologies • Network Devices :Hub, Switch, Router, Modem, Access Point, Gateway • Transmission Media (Guided and Unguided)

UNIT II: Network Models and Communication Protocols

Network Models and Protocols •OSI Reference Mode l• TCP/ IP Model • Comparison of OSI and TCP/IP Models • Data Encapsulation • Network Protocols • MAC Address and IP Address

UNIT III: IP Addressing and Network Services

IP Addressing and Internet Services • IPv4 Addressing • Public and Private IP Addresses • Subnet Mask (Basic Concepts) • DNS (Domain Name System) •DHCP (Dynamic Host Configuration Protocol) • NAT (Network Address Translation)

UNIT IV: Internet Protocols and Communication Security

Internet Protocols and Network Security •HTTP and HTTPS •FTP and SFTP • SMTP, POP3, And IMAP • SSH and Telnet • VPN (Introduction) • Common Port Numbers :20, 21,22,23,25,53,80,110, 143,443

UNIT V: Network Security Fundamentals

Network Security Fundamentals •Firewalls •Antivirus Software •Intrusion Detection System (IDS) • Intrusion Prevention System(IPS) •Proxy Server •Secure Wi-Fi Practices • Basic Network Trouble shooting

TEXT BOOK:

1. **William Stallings**–*Network Security Essentials: Applications and Standards,* 7th Edition, Pearson.
2. **Behrouz A.Forouzan–*Data Communications and Networking*, 5th Edition, McGrawHill.**

KRISHNAUNIVERSITY

Certificate Courses (Cyber Crime & Cyber Security) Model Paper for Core Subjects

Paper Title: Computer Networks

Time: 3hrs **Max.Marks:70**

Section–A(20Marks)

Answer any *Five* questions. All questions carry equal marks. **5X4=20M**

1. Types of Computer Networks.
2. Explain about Switch, Router?
3. Describe Data Encapsulation.
4. What is NAT?
5. Explain about POP3?
6. Differences between OSI and TCP/IP models.
7. Define IP Addressing?
8. Explain Secure Wi-Fi Practices.

Section–B(50Marks)

Answer ALL Questions. All questions carry equal marks. **5X10 =50M**

9. a) Explain about Network Topologies.

OR

b) Discuss about Transmission Media (Guided and Unguided).

10. a) Explain about the OSI ReferenceModel.

OR

b) Explain about Network Protocols.

11. a) Explain about IPv4 Addressing.

OR

b) Write about DNS (Domain Name System), DHCP (Dynamic Host Configuration Protocol).

12. a) Explain about HTTP, FTP and SMTP.

OR

b) What is VPN? Explain about Common Port Numbers.

13. a) Briefly explain about Intrusion Detection System (IDS) and Intrusion Prevention System (IPS).

OR

b) Explain about Firewalls, Antivirus Software and Proxy Server.