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

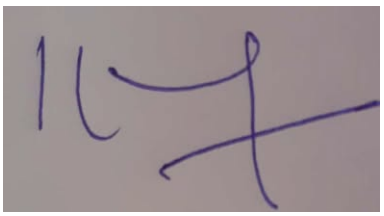
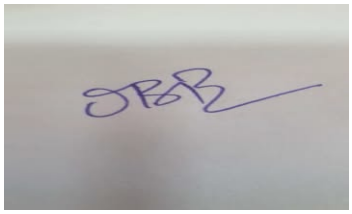
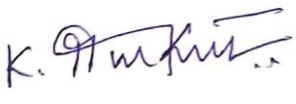
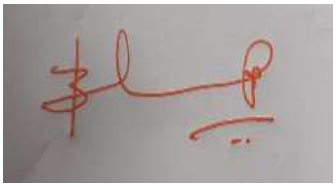
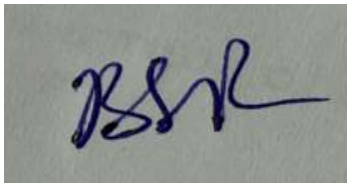
After detailed discussion, the **Board of Studies approved/recommended the proposed curriculum and syllabus** of the following Certificate courses:

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 Certificate Course in Data Analytics

Paper : Foundation of Data Analytics

UNIT-I

Overview of Data Analytics-Definition and importance-Applications in various industries-Data Types and Sources.

Structured and unstructured data -Primary and secondary data sources-DataAnalytics Life Cycle

UNIT-II

Data Collection and Cleaning -Data Collection Techniques-Surveys and questionnaires-Web scraping-Sensor data-APIs-Data Cleaning and Preprocessing Handling missing data-Outlier detection and treatment-Data normalization and scaling

UNIT.III

Data Visualization-Introduction to data visualization — Data visualization options — Filters - Dashboard development tools — Creating an interactive dashboard with excel.

UNIT-IV

Exploratory Data Analysis (EDA)- Descriptive Statistics-Mean, median, mode-Measures of variability.

Data Modelling- Machine Learning:Machine learning — Modelling Process — Training model — Validating model — Predicting new observations —Supervised learning algorithms — Unsupervised learning algorithms.

UNIT-V

Big Data: Big Data and Cloud technologies - Introduction to HADOOP: Big Data, Apache Hadoop, MapReduce - Data Serialization - Data Extraction - Stacking Data - Dealing with data.

Ethics and recent Trends: Data Science Ethics — Doing good data science — Owners of the data - Valuing different aspects of privacy - Getting informed consent - The Five Cs — Diversity

KRISHNAUNIVERSITY

Certificate Course (Data Analytics) Examinations Model Paper for Core Subjects

Paper Title: Foundation of Data Analytics

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

Section–A(20Marks)

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

1. Define Data Analytics and its importance.
2. Explain about Structured and unstructured data.
3. Describe about Web scraping.
4. Explain about Data normalization?
5. Explain about Filters?
6. Describe Exploratory Data Analysis (EDA).
7. Explain about Machine learning?
8. Explain about Data Extraction.

Section–B(50Marks)

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

9. a) Define Data Analytics. Applications of data analytics in various industries.

OR

b) Discuss about Data Analytics Life Cycle.

10. a) Explain about the Data Collection Techniques.

OR

b) Explain about Data Cleaning and Preprocessing Handling missing data.

11. a) Explain about Data Visualization.

OR

b) How to Creating an interactive dashboard with excel.

12. a) Explain about Descriptive Statistics.

OR

b) Write about Supervised learning algorithms.

13. a) Write about Big data. Explain the Structure of Apache Hadoop.

OR

b) Explain about Ethics and recent Trends in Data Analytics.