## MINUTES OF THE MEETING OF BOARD OF STUDIES (BOS) OF CSE DATA SCIENCE DEPARTMENT HELD ON 12/02/2025 AT 2 PM AT 316R LAB

### **Members Present**

- 1. Prof. Dr. Amlan Chakrabarti, Professor & Director, A.K. Choudhury School of Information Technology, University of Calcutta, V.C MAKAUT Nominee
- 2. Prof. Dr. Sipra Das Bit, Professor, IIEST, Shibpur, Kolkata, Academic Expert
- 3. Prof. Dr. Rajat Kumar Pal, Professor, University of Calcutta, Academic Expert
- 4. Dr. Monalisa Pal, Senior Engineer, Education Team, MathWorks India Private Limited, Industry Expert
- 5. Dr. Chandrima Chakrabarti, Associate Professor & Head, Department of CSE Data Science, Chairman BOS
- 6. Dr. Nabanita Das, Associate Professor, Department of CSE Data Science
- 7. Mr. Arindam Das, Assistant Professor, Department of CSE Data Science

### **Members Absent**

Nil

The meeting has been started with the welcome address by the Chairperson. Then the meeting is continued with agenda wise discussion.

# Agenda Item No. 1: To consider review of existing R23 curriculum for B.TECH Computer Science and Engineering Data Science (As Annexure1)

**Resolution:** HOD CSE Data Science requests all the members to kindly review the existing R23 curriculum (as Annexure1), syllabus (as Annexure-2) and suggest for any modification. BOS members suggest the following:

- No change of subject is required in 1<sup>st</sup> and 2<sup>nd</sup> semester.
- No change of subject is required in 3<sup>rd</sup> and 4<sup>th</sup>semester
- From 5<sup>th</sup> semester onwards, more Data Science specialized (departmental) subjects need to be introduced.
- The name of the subject "Cryptography and Network Security (DS504B)" in 5<sup>th</sup> semester can be renamed as "Cryptography and Security Issues" (DS504B) and Blockchain concept need to be added in syllabus.
- The subject named "Optimization Techniques" is in 7<sup>th</sup> semester as Minor optional subject. Members suggest the said subject can be taught in 5<sup>th</sup> semester as Major subject, as "Optimization Techniques" (M(DS)501). "Business Communication and Value Science" (HU(DS)501) can be replaced with "Optimization Techniques" (M(DS)501).
- The subject named "Business Communication and Value Science" (HU(DS)501) is in 5<sup>th</sup> semester as Humanities subject. Members suggest the said subject can be taught in 8<sup>th</sup> semester as Humanities subject.

- The subject "Internet and Web Programming" (DS601) in 6<sup>th</sup> semester can be replaced with a new subject named "Reinforcement Learning" (DS602), as it is Data Science specialized subject.
- The subject code of the subject "Machine Learning" (DS602) is changed. It becomes "Machine Learning" (DS601) in 6<sup>th</sup> semester.
- A new subject can be introduced to give emphasis on Data Science Applications in 6<sup>th</sup> semester. The subject name can be "Data Science Use Cases" (DS603).
- The subject "Business Intelligence and Analytics" (DS603) can be replaced with "Data Science Use Cases" (DS603).
- The subject "Blockchain and Cryptocurrency Technologies" (DS605) in 6<sup>th</sup> semester can be replaced with "Generative AI & Explainable AI" (DS605).
- The subject "Internet and Web Programming Lab" (DS691) in 6<sup>th</sup> semester can be replaced with "Generative AI & Explainable AI lab" (DS692).
- The subject code of the subject "Machine Learning lab" (DS692) is changed. It becomes "Machine Learning lab" (DS691) in 6<sup>th</sup> semester.
- The subject "Business Intelligence and Analytics Lab" (DS693) in 6<sup>th</sup> semester can be replaced with "Data Science Use Cases lab" (DS693).
- The name of the subject "Decision Support Systems and Intelligent Systems" (DS702B) in 7<sup>th</sup> semester can be renamed as "Cognitive Decision Support Systems" (DS702B).
- The name of the subject "Sensor Networks and IoT" (DS703B) in 7<sup>th</sup> semester can be renamed as "IoT and Data Science Synergy" (DS703B).
- The subject "Image Processing" (CS(DS)701B) in 7<sup>th</sup> semester can be replaced with "Computer Vision" (CS(DS)701B).
- The subject "Optimization Techniques" (M(DS)701C) in 7<sup>th</sup> semester can be replaced with "Bio Informatics" (CS(DS)701C). The subject "Optimization Techniques" is now shifted in 5<sup>th</sup> semester.
- The name of the subject "Decision Support Systems and Intelligent Systems lab" (DS792B) in 7<sup>th</sup> semester can be renamed with "Cognitive Decision Support Systems Lab" (DS792B).
- The name of the subject "Sensor Networks and IoT lab" (DS793B) in 7<sup>th</sup> semester can be renamed as "IoT and Data Science Synergy lab" (DS793B).
- The subject "Image Processing lab" (CS(DS)791B) in 7<sup>th</sup> semester can be replaced with "Computer Vision lab" (CS(DS)791B).
- The subject "Optimization Techniques lab" (M(DS)791C) in 7<sup>th</sup> semester can be replaced with "Bio Informatics lab" (CS(DS)791C).
- The subject "Soft Computing" (DS801C) in 8<sup>th</sup> semester can be replaced with "Nature-Inspired Computing in Data Science" (DS801C).
- The subject "Business Communication & Value Science" can be shifted in 8<sup>th</sup> semester from 5<sup>th</sup> semester. The subject code will be HU(DS)802 with credit 3.
- The set of elective papers in serial number 3 [As Annexure 1) can be removed as those subjects are placed in 8<sup>th</sup> semester, 7<sup>th</sup> semester respectively. So, the subject load on 8<sup>th</sup> semester can be reduced.

These suggestions are widely accepted.

## Agenda Item No. 2: To discuss the structure of R25 curriculum

#### **Resolution:**

BOS members suggest that based on the discussion in Agenda Item no. 1, the required changes need to be reflected on R25 curriculum. The proposed R25 curriculum structure is attached as Annexure 2 for ready reference.

## Agenda Item No. 3: To consider and approve Board of Examiners for theory and practical examination for the 1st year and 2<sup>nd</sup> year classes

#### **Resolution:**

It has been decided that external examiners and moderators can be appointed from reputed organizations. In case of non-availability of any examiner and moderator, HOD can call any external expert from reputed organization after discussion in the DAC.

# Agenda Item No. 4: Discussion about improvement of the department (as the Department started in 2023).

### **Resolution:**

The CSE Data Science Department started its journey in 2023. HOD, CSE Data Science requests the members to suggest how improvement of the department can be done. BOS members highlight the following points-

- Need more faculties in the department.
- Student Faculty Ratio (SFR) is very poor. For the Department to run smoothly, it needs to be increased.
- Need atleast two computer labs in the department.
- In Data Science lab Graphics Processing Unit (GPU) is mandatory.
- Technical Assistants need to be recruited in computer labs for smooth function
- One dedicated HOD room with A.C facility is required.
- All M.Tech faculties need to register for Ph.D. program.
- Publications need to be increased.
- Faculty training and development programs need to be organized in Data Science domain.

### **Agenda Item No. 5: Miscellaneous:**

**Resolution:** BOS members suggested that to make student industry-ready, more interaction with the industry is required. There is no other significant discussion and the meeting ends with thanks from and to the chair.

C. Chakraborti.

Dr. Chandrima Chakrabarti, Associate Professor & Head, Chairperson BOS CSE Data Science Department

Nabanita Sas.

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Dr. Nabanita Das,

Associate Professor, Department of CSE Data Science.

Mr. Arindam Das, Assistant Professor, Department of CSE Data Science.