

Curriculum Framework and Syllabus for

MASTER OF SCIENCE IN DATA SCIENCE

For the students admitted from the academic year 2019-2020

(BASED ON OUTCOME BASED EDUCATION-OBE)



by

Board of Studies – Post Graduate – Data Science
January 2019

POST GRADUATE DEPARTMENT OF DATA SCIENCE

NEHRU MEMORIAL COLLEGE

[Nationally Accredited with 'A' Grade by NAAC]
An Autonomous College affiliated to Bharathidasan University
Puthanampatti—621 007



**NEHRU MEMORIAL COLLEGE
(Autonomous)
PUTHANAMPATTI – 621 007**

REVISION OF SYLLABUS – 2019-20

PG – Data Science

MEETING OF THE BOARD OF STUDIES – SEPTEMBER 22, 2018

Minutes of the Meeting

The Members of the Board met at 10.00 a.m. on 22nd September, 2018 in the Seminar Hall, Nehru Memorial College (Autonomous), Puthanampatti – 621 007 in the presence of the University Representative Dr.P.Muruganatham, Assistant Professor, Department of Mathematics, Jamal Mohamed College (Autonomous), Tiruchirapalli, Subject Expert, Dr.U.Srinivasulu Reddy, Assistant Professor, Department of Computer Applications, National Institute of Technology, Tiruchirappalli and the Alumni Representative Mr.Madhuprasad Ramalingam, Associate Tech Lead, Encore Theme Technologies Limited, Chennai along with the following Internal members.

1. Dr.A.R.Ponperiasamy, Principal, Nehru Memorial College, Puthanampatti
2. Mrs.S.Mala, Asst. Prof., Dept. of Data Science, Nehru Memorial College.
3. Dr.K.Sridevi, Asst. Prof., Dept. of Computer Science, Nehru Memorial College.
4. Ms.P Kalpana, Asst. Prof., Dept. of Computer Science, Nehru Memorial College.
5. Mr.T Yogeswaran, Asst. Prof., Dept. of Mathematics, Nehru Memorial College.

The subject expert Dr.P.Kalavathi, Professor and Head, Department of Computer Science and Applications, The Gandhigram Rural Institute (Deemed to be University), Gandhigram couldn't make her presence due to unavoidable circumstances but she made her suggestions through e-mail and it is enclosed herewith as **Annexure – I**.

Mrs.S.Mala, Asst. Prof. of Data Science and chairperson for PG Data Science presented the proposed syllabus. The syllabus incorporates – 15 Core Courses, 04

Elective Courses and 1 Open Elective Course for the students to be admitted from 2019-2020 onwards. After in depth deliberations on issues concerning the syllabus, question paper pattern and the methodology to be adopted, the Board approved the syllabus proposals with necessary modifications and passed the following resolutions unanimously.

1) NMC/Auto/BOS/PG. Data Science/No. 1/2018

It is resolved to approve the syllabus of the 15 Course Courses, 4 Elective Courses and 1 Open Elective Course for the students to be admitted from 2019-2020 onwards.

2) NMC/Auto/BOS/PG. Data Science/No. 2/2018

It is resolved to introduce tri-semester system for the 1st year of PG Data Science. In the fourth semesters, the students will do 3 core courses and 1 elective course and proposed to provide Internship.

3) NMC/Auto/BOS/PG. Data Science/No. 3/2018

It is resolved to follow the pattern of question paper enclosed in Annexure - II unanimously.

4) NMC/Auto/BOS/PG. Data Science/No. 4/2018

It is resolved to study the “Deep Learning” course as Online Course.

5) NMC/Auto/BOS/PG. Data Science/No. 5/2018

It is resolved to do internship during second year with the same credit (4).

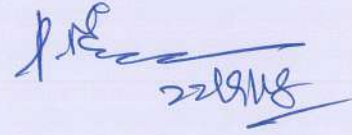
The recommendations and suggestion made by the committee is reported in Annexure – III. The detailed syllabus of the same is reported in Annexure – IV.

The meeting ended at 1.00 pm with a vote of thanks by Ms.P.Kalpana, Assistant Professor, Department of Computer Science, Nehru Memorial College (Autonomous), Puthanampatti.

Members Signature:

Dr. P. Muruganandham

Assistant Professor
Department of Mathematics
Jamal Mohamed College (Autonomous)
Tiruchirappalli- 620 020



Dr. U. Srinivasulu Reddy

Assistant Professor
Department of Computer Applications
National Institute of Technology
Tiruchirappalli- 620 015



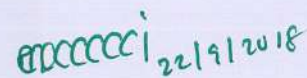
Mr. Madhuprasad Ramalingam

Alumni Representative
Associate Tech Lead
Encore Theme Technologies Limited
C-23, 5th Cross Street, 1st Floor
Thiru-Vi-Ka Industrial Estate
Guindy, Chennai-600 032



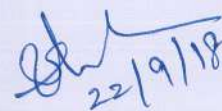
Dr.A.R.Ponperiasamy

Principal
Nehru Memorial College (Autonomous)
Puthanampatti-621007



Mrs.S.Mala

Assistant Professor
Dept. of Data Science
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Dr.K.Sridevi

Assistant Professor
Dept. of Computer Science
Nehru Memorial College (Autonomous)
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KS
22/9/18

Ms.P.Kalpana

Assistant Professor
Dept. of Computer Science
Nehru Memorial College (Autonomous)
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Kalpana
22/9/18


Mr.T.Yogeswaran

Assistant Professor
Dept. of Mathematics
Nehru Memorial College (Autonomous)
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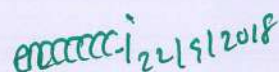
T.Yog
22/9/18

Annexure – I**Suggestions/ Recommendations by the Board of Studies (PG –Data Science)**

1. It is recommended to change Data Mining course as **Data Mining Techniques**.
2. Suggested to replace “Data Preparation and Analysis” with “**Business Intelligence**” and recommended to include the concept Data Mapping in the subject.
3. It is recommended to use “**WEKA**” tool in the mining lab
4. Suggested to have “ **Probability and Statistical Computing**” instead of “Probability and statistics”
5. Recommended to remove “**Artificial Intelligence**” from “Artificial Intelligence and Machine Learning”
6. Introduce “**Social Media Mining**” instead of “Recommender Systems”
7. Introduce “**Customer Relationship Management**” instead of “Data Science for Business” and “**Financial Risk Analytics and Management**” instead of “Time Series Analysis” as Elective course.
8. Recommended to introduce “**Cloud and Web Intelligence**” instead of “Text Mining” and “**Health Care Data Analytics**” instead of “Web Mining” as Elective course-IV.
9. Suggested to replace “Exploratory and Descriptive Data Analytics “ with “**Information Security**”
10. Asked to introduce “**Image and Video Analytics**” instead of “Image Analytics.



Mrs. S.Mala
Chair Person



Dr.A.R.PonPeriyasamy
Principal