RAAK

COLLEGE OF ENGINEERING AND TECHNOLOGY

(Approved by AICTE, New Delhi & Affiliated to Pondicherry University)

01/08/2018

From

Ms. R. Ranjani

Assistant Professor,Computer Science Engineering

RAAK College of Engineering and Technology

Puducherry -110

To

The Principal

RAAK College of Engineering and Technology

Puducherry -110

Respected Sir,

Sub: Requisition for Approval to Conduct Skill Development program / Value added Course on **"18CSE01- Business Intelligence and Analytics"** - reg.

This is to bring to your kind notice that the Skill Development Team is planning to conduct a Program on **"18CSE01- Business Intelligence and Analytics"** for all the Final Year Computer science and Engineering students from 09-08-2018 to 13-08-2018.

The main focus of this program is to provide a better exposure to our students on the Business Intelligence and Analytics for practical applications.

The syllabus and course plan structured are not listed in the Pondicherry University Curriculum and the same have been verified and approved by the Principal/HoD/Professors and Skill development team.

Hence, I kindly request you to approve event planned. The details and the necessary proofs are attached with this letter.

Thanking you,

Yours faithfully,

R. Ranjani

Ms. R. Ranjani

AP/CSE

RAAK College of Engineering & Technology

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 110

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**RAAKCET/PRINCIPAL/CIR/AUG2018** **02/08/2018**

## CIRCULAR

This is to inform that the Skill Development Team is planning to conduct a value added course on **"18CSE01- Business Intelligence And Analytics"** for all the Final Year Computer science and Engineering students from 09-08-2018 to 13-08-2018.Students are asked to utilize this opportunity and improve their skills.

**PRINCIPAL**

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 110

Circulation to:

1. All Students
2. All Faculty & Staff Members
3. All HoDs

Copy to:

1. All HoDs
2. Office

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# DEPARTMENT OF COMPUTER SCINCE AND ENGINEERING PRESENTS

# VALUE ADDED COURSE ON

# BUSINESS INTELLIGENCE AND ANALYTICS

## 2018-2019

*DATE: 09/08/2018 to 13/08/2018*

*VENUE: RAAKCET*

*TIME: 09 am to 04 pm*

**Resource Person:**

Mr. R. Sathishkumar
Assistant Professor,
IFET Engineering College.

**For Registration Contact:**

Mr. P. Mohan, AP/ CSE.,
8324974865.

HOD

Mrs. V. Gowri

PRINCIPAL

Dr. A. Sivakumar

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
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**VALUE ADDED COURSES**

**2018-2019**

**Department of Computer Science and Engineering**

**18CSE01- Business Intelligence and Analytics**

**Syllabus**

**Duration: 30 hours**

**Course Objective:**

- Introduce the Business intelligence concepts, techniques and models
- understand the modeling process behind business analytics
- To analyze different data analysis tool and techniques

**Course Outcome:**

Upon successful completion of the course students able to

1. Understandthe fundamentalof BusinessIntelligenceandtodesigna customizedsolution.
2. Familiarizeontheconcepts,techniquesandreportingmethodsofdescriptiveanalyticsandpredictive analytics
3. Explorethe methodsusedtoanalyzespeechandtextandimplementoptimizedsearchengines
4. Design andimplementDecisionSupport systems
5. Familiarizeontheprocessesneededtodevelop,report,andanalyze business data.

**Module 1: Introduction** **(9 Hours)**

Introduction, Audio-visualContentAnalysis,Videoindexing,Browsing,Abstraction,MPEG – 7 Standard.

**Module 2: Background and Previous works** **(9 Hours)**

Visual content analysis, Audio Content Analysis, Speaker Identification, Video Abstraction.

**Module 3: Content based movie scene and event extraction** **(9 Hours)**

Content based movie scene and event extraction-movie scene extraction, movie event extraction, experimental results

**.Module 4: Speaker identification for movies** **(9Hours)**

Speaker identification for movies - supervised speaker identification for movie dialogues, adaptive speaker identification, experimental results.

**Module 5: Scene-based movie summarization** **(9 Hours)**

Scene-based movie summarization- overview, hierarchical key frame extraction, scalable movie summarization, experimental results.

**Course Designed by** **Approved by** **Principal**

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## CO - ATTAINMENT MAPPING

| Sl. No | Register Number | Student Name | CO1 | CO2 | CO3 | CO4 |
|---|---|---|---|---|---|---|
| 1 | 15TD3101 | ANISHAMONTINA M | ✓ | ✓ | ✓ | ✓ |
| 2 | 15TD3102 | CHADRAVATHI.T | ✓ | ✓ | ✓ | ✓ |
| 3 | 15TD3103 | MABUNIZA.S | ✓ | ✓ | ✓ | ✓ |
| 4 | 15TD3104 | MADHUVANTHI.S | ✓ | ✓ | ✓ | ✓ |
| 5 | 15TD3105 | MUMTAJ BEGUM.I | ✓ | ✓ | ✓ | ✓ |
| 6 | 15TD3106 | SAMSATH BEGUM.S | ✓ | ✓ | ✓ | ✓ |
| 7 | 15TD3107 | SHAMEENA BEGUM.J | ✓ | ✓ | ✓ | ✓ |
| 8 | 15TD3108 | SUMATHIRA.I | ✓ | ✓ | ✓ | ✓ |
| 9 | 15TD3109 | VIDHYA.V | ✓ | ✓ | ✓ | ✓ |

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**VALUE ADDED COURSES**

**2018-2019**

**Department of Computer Science and Engineering**

**18CSE01- Business Intelligence and Analytics**

**COURSE PLAN**

| S.no | Date | Hours | Time | Topic | Resource person |
|---|---|---|---|---|---|
| DAY -1 | | | | | |
| 1 | 09.08.18 | 1,2 | 9AM -11AM | Introduction, Audio-visualContentAnalysis | Dr.P.Ramachandiran & Mr.R.Sathishkumar |
| 2 | | 3,4 | 11.15AM – 1.15 PM | Mold Volume & Parting Surface Creation, | Dr.P.Ramachandiran |
| 3 | | 5,6 | 2 PM -4PM | MPEG – 7 Standard. | Mr.R.Sathishkumar |
| DAY 2 | | | | | |
| 4 | 10.08.18 | 7,8 | 9AM -11AM | Visual content analysis | Dr.P.Ramachandiran |
| 5 | | 9,10, | 11.15AM – 1.15 PM | Audio Content Analysis, Speaker Identification, | Mr.R.Sathishkumar |
| 6 | | 11,12 | 2 PM -4PM | Video Abstraction. | Dr.P.Ramachandiran |
| DAY -3 | | | | | |
| 7 | 11.08.18 | 13,14 | 9AM -11AM | Content based movie scene | Mr.R.Sathishkumar |
| 8 | | 15,16 | 11.15AM – 1.15 PM | event extraction-movie scene extraction. | Dr.P.Ramachandiran |
| 9 | | 17,18 | 2 PM -4PM | movie event extraction, experimental results | Mr.R.Sathishkumar |
| DAY -4 | | | | | |
| 10 | 12.08.18 | 19,20 | 9AM -11AM | Speaker identification for movies. | Dr.P.Ramachandiran |
| 11 | | 21,22 | 11.15AM – 1.15 PM | supervised speaker identification for movie dialogues | Mr.R.Sathishkumar |
| 12 | | 23,24 | 2 PM -4PM | Adaptive speaker identification, experimental results. | Dr.P.Ramachandiran |
| DAY -5 | | | | | |
| 13 | 13.08.18 | 25,26 | 9AM -11AM | Scene-based movie summarization-overview. | Mr.R.Sathishkumar |

RAAK College of Engineering & Technology

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Sulthanpet Post,
Puducherry - 605 110

| | | | | | |
|---|---|---|---|---|---|
| 14 | | 27,28 | 11.15AM – 1.15 PM | hierarchical key frame extraction, scalable movie summarization | Dr.P.Ramachandiran |
| 15 | | 29,30 | 2 PM -4PM | experimental results. | Mr.R.Sathishkumar |
| ***ASESSMENT EXAM WILL BE CONDUCTED AFTER ONE WEEK OF COURSE COMPLETION **** | | | | | |

**BREAK TIME: 11.00 TO 11.15 AM** **LUNCH BREAK: 1.15 PM TO 2.00 PM**

COURSE DESIGNED BY
Ms. R. RANJANI

APPROVED BY
SKILL DEVELOPMENT TEAM

PRINCIPAL

RAAK College of Engineering & Technology

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**VALUE ADDED COURSES**
**2018-2019**
**Department of Computer Science and Engineering**

**EVENT REPORT**

Name of the Course: 18CSE01- Business Intelligence and Analytics

Name of the Instructors: Dr.P.Ramachandiran & Mr.R.Sathishkumar

Year/ Branch: IV/CSE

Duration of Course: 30 Hours (09-08-2018 to 13-08-2018)

Assessment Date: 20.08.2018

**Post Event Summary:**

The course was inaugurated on 09-08-2018 at 9.30 A.M. by our respectable principal and sessions were continued as per the schedule. Students were enriched their knowledge by attending the course. Finally, the course concluded by vote of thanks.

On 20.08.2018 assessment was conducted and feedbacks were collected from all the participants.

**CO - Attainment:**

**CO1:** Understand the fundamental of Business Intelligence and to design a customized solution.
**CO2:**Familiarize on the concepts, techniques and reporting methods of descriptive analytics and predictive analytics
**CO3:**Explore the methods used to analyze speech and text and implement optimized search engines
**CO4:**Design and implement Decision Support systems

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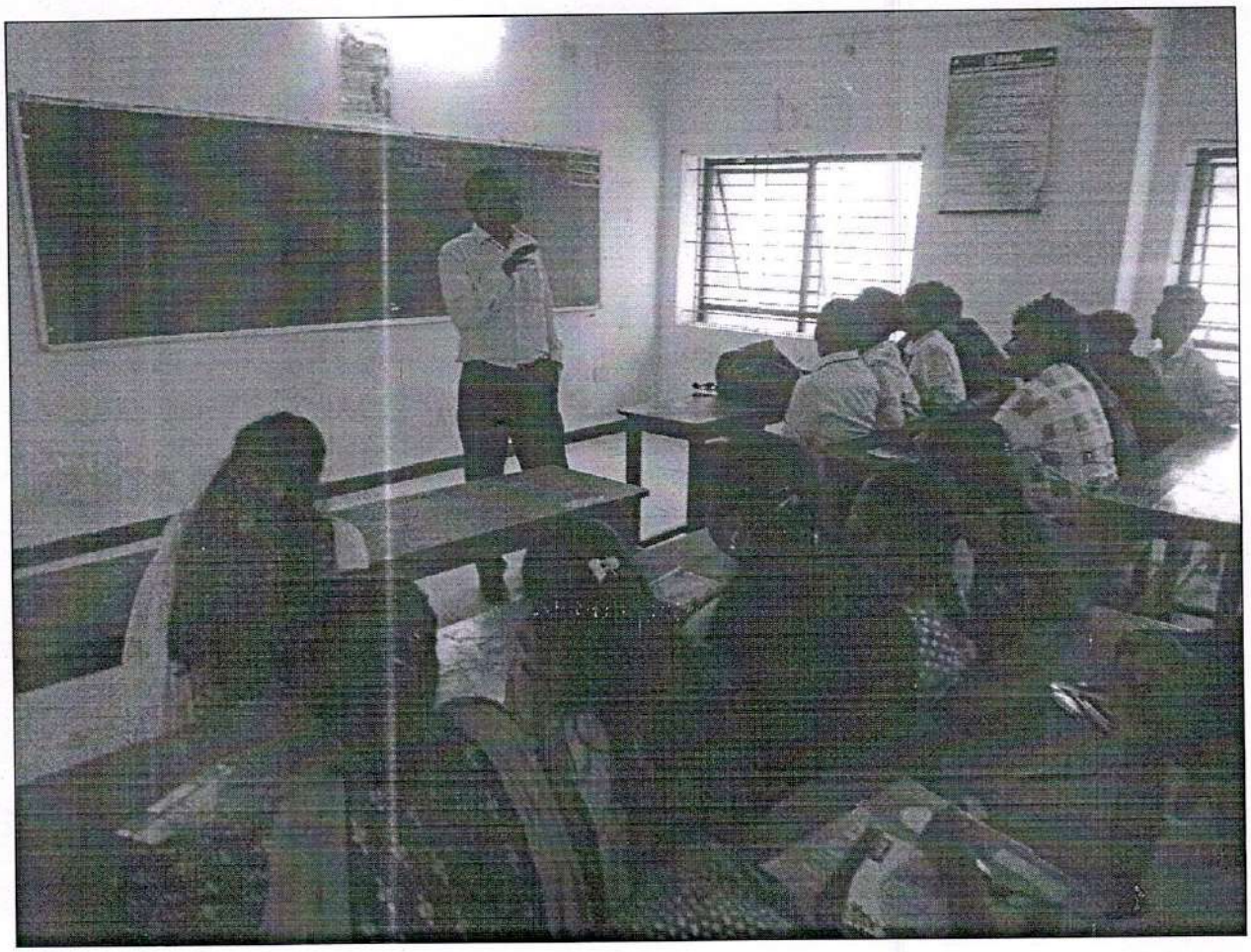
**Value Added Course On Business Intelligence and Analytics 2018-19**



Mold Volume & Parting Surface Creation on 09.08.18

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Puducherry - 605 110.

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01/08/2018

From

Mr. S. Udayakumar

Assistant Professor/CSE

RAAK College of Engineering and Technology

Puducherry -110

To

The Principal

RAAK College of Engineering and Technology

Puducherry -110

Respected Sir,

Sub: Requisition for Approval to Conduct Skill Development program / Value added Course on **"18CSE02- Nature Inspired Computing"** — reg.

This is to bring to your kind notice that the Skill Development Team is planning to conduct a Program on **"18CSE02- Nature Inspired Computing"** for all the Third Year Computer science and Engineering students from 09-08-2018 to 13-08-2018.

The main focus of this program is to provide a better exposure to our students on Nature Inspired Computing for practical applications.

The syllabus and course plan structured are not listed in the Pondicherry University Curriculum and the same have been verified and approved by the Principal/HoD/Professors and Skill development team.

Hence, I kindly request you to approve event planned. The details and the necessary proofs are attached with this letter.

Thanking you,

Yours faithfully,

S. Uday.

Mr. S. Udayakumar

AP/CSE

RAAK College of Engineering & Technology

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RAAKCET/PRINCIPAL/CIR/AUG2018

02/08/2018

**CIRCULAR**

This is to inform that the Skill Development Team is planning to conduct a value added course on **"18CSE02- Nature Inspired Computing"** for all the Third Year Computer science and Engineering students from 09-08-2018 to 13-08-2018.Students are asked to utilize this opportunity and improve their skills.

**PRINCIPAL**

Circulation to:

1. All Students
2. All Faculty & Staff Members
3. All HoDs

Copy to:

1. All HoDs
2. Office

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
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# DEPARTMENT OF COMPUTER SCINCE AND ENGINEERING PRESENTS

# VALUE ADDED COURSE ON NATURE INSPIRED COMPUTING

## 2018-2019

***DATE: 09/08/2018 to 13/08/2018***

***VENUE: RAAKCET***

***TIME: 09 am to 04 pm***

**Resource Person:**

**Ms. C. Reikha**
**Assistant Professor,**
**Mailam Engineering college.**

**For Registration Contact:**

**Ms. R. Ranjani, AP/ CSE.,**
**8986542218.**

**HOD**

**Mrs. V. Gowri**

RAAK College of Engineering & Technology

**PRINCIPAL**

**Dr. A. Sivakumar**

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
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**VALUE ADDED COURSES**

**2018-2019**

**Department of Computer Science and Engineering**

**18CSE02- Nature Inspired Computing**

**Syllabus**

**Duration: 30 hours**

**Course Objective:**

- To establish basic knowledge in NP hard problems and understand the need for approximation algorithms.
- Design algorithms that include operators, representations, fitness functions and potential hybridizations for non-trivial problems.
- Design algorithms that utilize the collective intelligence of simple organisms to solve problems.
- Design and implement an artificial neural network that employs learning to solve non-trivial problems.

**Course Outcome:**

Upon successful completion of the course students able to

- Understand fundamental concepts of NP-hardness and computational complexity
- Understand the strengths, weaknesses and appropriateness of nature-inspired algorithms.
- Apply nature-inspired algorithms to optimization, design and learning problems.
- Analyze the Behavior systems of nature inspired algorithm applied in real world problems.
- Understand the theory behind the design of immune networks and DNA computing andtheir potential applications.

**Module 1: Introduction to Computational Problems** **(9 Hours)**

Computational Problems, Decision Problem, Optimization Problem, Hardness in Optimization Problems, NP class, NP-Hard, examples for NP-Hard problems, tackling NP-Hard problems,Rationale for seeking inspiration from nature

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**Module 2: Evolutionary Systems** **(9 Hours)**

Pillars of Evolutionary Theory, The Genotype, Artificial Evolution, Genetic representations, Initial Population , Fitness Functions, Selection and Reproduction ,Genetic Operators , Evolutionary Measures, Types of Evolutionary Algorithms.

**Module 3: Collective Systems & Artificial Neural Networks** **(9 Hours)**

Particle Swarm Optimization Algorithm, Hybrid PSO algorithms, Ant Colony Optimization, Artificial Bee Colony, Firefly Algorithm - History, Mathematical model of neuron, ANN architectures, Learning rules Back propagation
Network, Back propagation learning and its applications, Variants of BPA.

**Module 4: Behavioral systems** **(9 Hours)**

Behavior in Cognitive Science , Behavior in Artificial Intelligence , Behavior-Based Robotics , Biological Inspiration for Robots , Robots as Biological Models, Robot Learning , Evolution of Behavioral Systems Evolution and Learning in Behavioral Systems , Evolution and Neural Development in Behavioral Systems.

**Module 5: DNA Computing** **(9 Hours)**

DNA Computing: Motivation, DNA Molecule , Adleman's experiment , Test tube programming language, Universal DNA Computers , PAM Model , Splicing Systems , Lipton's Solution to SATProblem , Scope of DNA Computing , From Classical to DNA Computing.

**Course Designed by** **Approved by** **Principal**

RAAK College of Engineering & Technology

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## CO - ATTAINMENT MAPPING

| Sl. No | Register Number | Student Name | CO1 | CO2 | CO3 | CO4 |
|---|---|---|---|---|---|---|
| 1 | 16TD3101 | DEVADHARSHINI.S | ✓ | ✓ | ✓ | ✓ |
| 2 | 16TD3102 | JEEVA.M | ✓ | ✓ | ✓ | ✓ |
| 3 | 16TD1037 | SHASHANTHINI.VR | ✓ | ✓ | ✓ | ✓ |

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# VALUE ADDED COURSES

## 2018-2019

## Department of Computer Science and Engineering

## 18CSE02- Nature Inspired Computing

## COURSE PLAN

| S.no | Date | Hours | Time | Topic | Faculty details |
|---|---|---|---|---|---|
| DAY -1 | | | | | |
| 1 | 09.08.18 | 1,2 | 9AM -11AM | Computational Problems, Decision Problem, Optimization Problem, | P.Karthikeyan & Mr.C.Reikha |
| 2 | | 3,4 | 11.15AM – 1.15 PM | Hardness in Optimization Problems, NP class, NP-Hard, examples for NP-Hard problems | P.Karthikeyan |
| 3 | | 5,6 | 2 PM -4PM | Tackling NP-Hard problems,Rationale for seeking inspiration from nature | Mr.C.Reikha |
| DAY 2 | | | | | |
| 4 | 10.08.18 | 7,8 | 9AM -11AM | Pillars of Evolutionary Theory, The Genotype, Artificial Evolution, | P.Karthikeyan |
| 5 | | 9,10, | 11.15AM – 1.15 PM | Initial Population, Fitness Functions, Selection and Reproduction, Genetic | Mr.C.Reikha |
| 6 | | 11,12 | 2 PM -4PM | Evolutionary Measures, Types of Evolutionary Algorithms | P.Karthikeyan |
| DAY -3 | | | | | |
| 7 | 11.08.18 | 13,14 | 9AM -11AM | Particle Swarm Optimization Algorithm, Hybrid PSO algorithms, Ant Colony Optimization, | Mr.C.Reikha |
| 8 | | 15,16 | 11.15AM – 1.15 PM | Artificial Bee Colony, Firefly Algorithm - History, Mathematical model of neuron, ANN architectures, | P.Karthikeyan |

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| | | | | | |
|---|---|---|---|---|---|
| 9 | | 17,18 | 2 PM -4PM | Learning rules Back propagation Network, Back propagation learning and its applications, Variants of BPA. | Mr.C.Reikha |
| DAY -4 | | | | | |
| 10 | 12.08.18 | 19,20 | 9AM -11AM | Behavior in Cognitive Science, Behavior in Artificial Intelligence, Behavior-Based Robotics. | P.Karthikeyan |
| 11 | | 21,22 | 11.15AM – 1.15 PM | Biological Inspiration for Robots , Robots as Biological Models, Robot Learning , Evolution of Behavioral Systems Evolution and | Mr.C.Reikha |
| 12 | | 23,24 | 2 PM -4PM | Learning in Behavioral Systems , Evolution and Neural Development in Behavioral Systems | P.Karthikeyan |
| DAY -5 | | | | | |
| 13 | 13.08.18 | 25,26 | 9AM -11AM | DNA Computing: Motivation, DNA Molecule , Adleman's experiment | Mr.C.Reikha |
| 14 | | 27,28 | 11.15AM – 1.15 PM | Test tube programming language, Universal DNA Computers , PAM Model , Splicing Systems , Lipton's Solution to SAT Problem | P.Karthikeyan |
| 15 | | 29,30 | 2 PM -4PM | Scope of DNA computing , From Classical to DNA Computing | Mr.C.Reikha |
| ***ASESSMENT EXAM WILL BE CONDUCTED AFTER ONE WEEK OF COURSE COMPLETION **** | | | | | |

**BREAK TIME: 11.00 TO 11.15 AM** **LUNCH BREAK: 1.15 PM TO 2.00 PM**

COURSE DESIGNED BY
Mr. S. UDAYAKUMAR

APPROVED BY
SKILL DEVELOPMENT TEAM

PRINCIPAL

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
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RAAK College of Engineering & Technology
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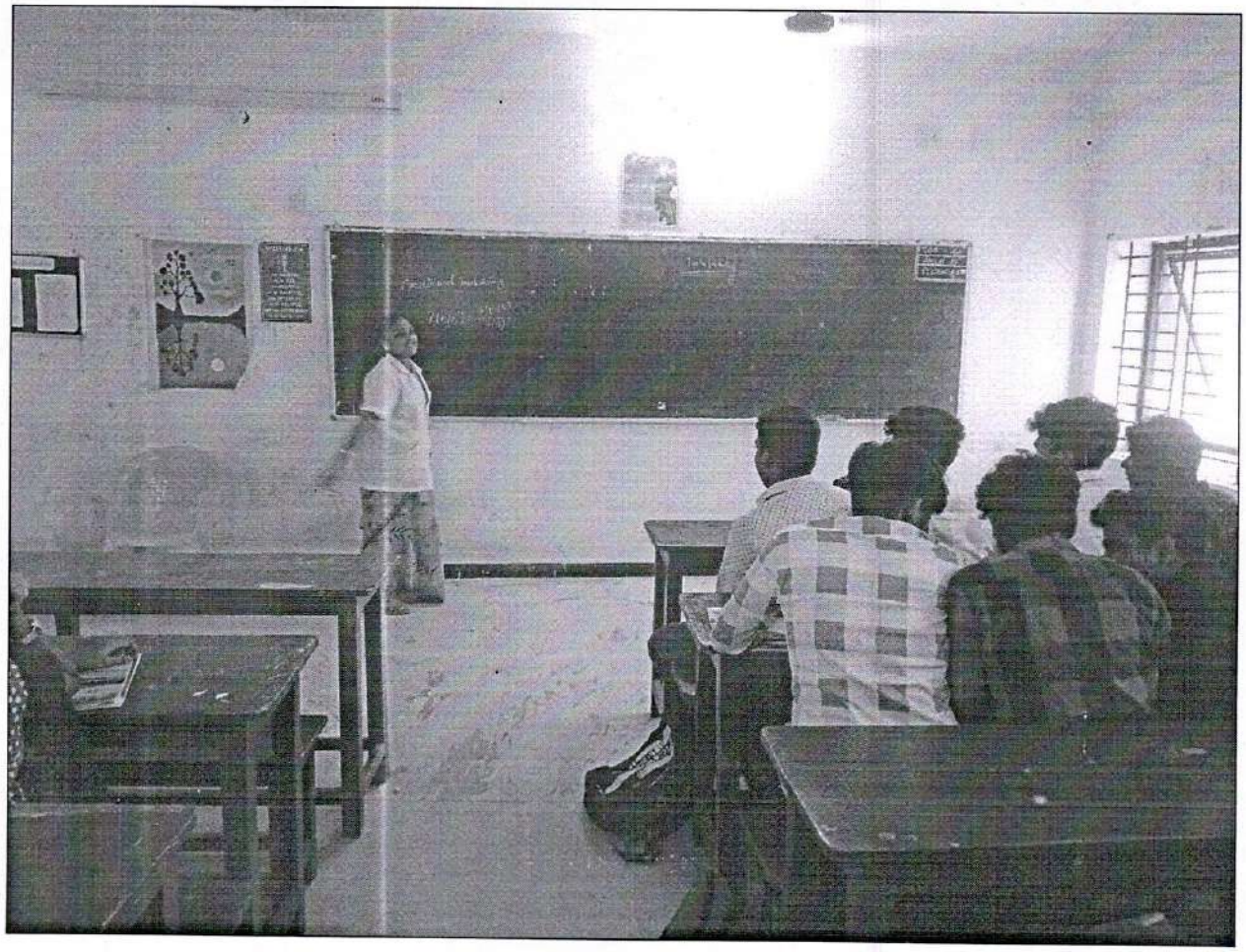
**Value Added Course On Nature Inspired Computing 208-19**



Tackling NP-Hard problems,Rationale for seeking inspiration from nature 11.08.18

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**VALUE ADDED COURSES**
**2018-2019**
**Department of Computer Science and Engineering**

**EVENT REPORT**

Name of the Course: 18CSE02- Nature Inspired Computing

Name of the Instructors: P.Karthikeyan & Mr.C.Reikha

Year/ Branch: III/ CSE

Duration of Course: 30 Hours (09-08-2018 to 13-08-2018)

Assessment Date: 20.08.2018

**Post Event Summary:**

The course was inaugurated on 09-08-2018 at 9.30 A.M. by our respectable principal and sessions were continued as per the schedule. Students were enriched their knowledge by attending the course. Finally, the course concluded by vote of thanks.

On 20.08.2018 assessment was conducted and feedbacks were collected from all the participants.

**CO - Attainment:**

**CO1**: Understand fundamental concepts of NP-hardness and computational complexity

**CO2**: Understand the strengths, weaknesses and appropriateness of nature-inspired algorithms.

**CO3**: Apply nature-inspired algorithms to optimization, design and learning problems.

**CO4**: Analyze the Behavior systems of nature inspired algorithm applied in real world problems.

RAAK College of Engineering & Technology

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01/08/2018

From

Mr. G. Prakasam

Assistant Professor/CSE

RAAK College of Engineering and Technology

Puducherry -110

To

The Principal

RAAK College of Engineering and Technology

Puducherry -110

Respected Sir,

Sub: Requisition for Approval to Conduct Skill Development program / Value added Course on

**"18CSE03- Data Visualization and Presentation"** - reg.

This is to bring to your kind notice that the Skill Development Team is planning to conduct a Program on **"18CSE03- Data Visualization and Presentation"** for all the Second Year Computer science and Engineering students from 09-08-2018 to 13-08-2018.

The main focus of this program is to provide a better exposure to our students on Data Visualization and Presentation for practical applications.

The syllabus and course plan structured are not listed in the Pondicherry University Curriculum. and the same have been verified and approved by the Principal/HoD/Professors and Skill development team.

Hence, I kindly request you to approve event planned. The details and the necessary proofs are attached with this letter.

Thanking you,

Yours faithfully,

Mr. G. Prakasam

AP/CSE

RAAK College of Engineering & Technology

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# COLLEGE OF ENGINEERING AND TECHNOLOGY

(Approved by AICTE, New Delhi & Affiliated to Pondicherry University)

**RAAKCET/PRINCIPAL/CIR/AUG2018** **02/08/2018**

## CIRCULAR

This is to inform that the Skill Development Team is planning to conduct a value added course on **"18CSE03- Data Visualization and Presentation"** for all the Second Year Computer science and Engineering students from 09-08-2018 to 13-08-2018.Students are asked to utilize this opportunity and improve their skills.

**PRINCIPAL**

Circulation to:

1. All Students
2. All Faculty & Staff Members
3. All HoDs

Copy to:

1. All HoDs
2. Office

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
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NO:1, MUTHUPILLAI PALAYAM ROAD, G.N. PALAYAM, VILLIYANUR, PUDUCHERRY - 605 110

## DEPARTMENT OF COMPUTER SCINCE AND ENGINEERING PRESENTS

## VALUE ADDED COURSE ON

## DATA VISUALIZATION AND PRESENTATION

## 2018-2019

*DATE: 09/08/2018 to 13/08/2018*

*VENUE: RAAKCET*

*TIME: 09 am to 04 pm*

**Resource Person:**

**Mr. P. Karthikeyan**
**Assistant Professor,**
**Rajiv Gandhi College of Engg & Tech.**

**For Registration Contact:**

**Ms. S. Suganya, AP/ CSE.,**
**7824524704.**

**HOD**

**Mrs. V. Gowri**

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**PRINCIPAL**

**Dr. A. Sivakumar**

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**VALUE ADDED COURSES**

**2018-2019**

**Department of Computer Science and Engineering**

**18CSE03- Data Visualization and Presentation**

**Syllabus**

**Duration: 30 hours**

**Course Objective:**

- Understand the various types of data, apply and evaluate the principles of data visualization.
- Acquire skills to apply visualization techniques to a problem and its associated dataset.
- Apply structured approach to create effective visualizations.
- Learn how to bring valuable insight from the massive dataset using visualization.
- Learn how to build visualization dashboard to support decision making.

**Course Outcome:**

Upon successful completion of the course students able to

- Identify the different data types, visualization types to bring out the insight.
- Relate the visualization towards the problem based on the dataset to analyze and bring out valuable insight on large dataset.
- Design visualization dashboard to support the decision making on large scale data.
- Demonstrate the analysis of large dataset using various visualization techniques and tools.
- Identify the different attributes and showcasing them in plots. Identify and create various visualizations for geospatial and table data.

**Module1:Introduction to Data Visualization & Visual Analytics** **(9Hours)**

Overview of data visualization - Data Abstraction - Task Abstraction - Analysis: Four Levels for Validation Visual Variables- Networks and Trees - Map Color and Other Channels- Manipulate View- Heat Map.

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**Module 2: Visualization Techniques (9 Hours)**

Scalar and Point techniques – Color maps – Contouring – Height Plots - Vector visualization techniques – Vector properties – Vector Glyphs – Vector Color Coding – Matrix visualizationtechniques

**Module 3: Visualization Tools & Techniques** **(9 Hours)**

Introduction to various data visualization tools: R –basics, Data preprocessing, Statistical analysis, Plotly and g g plot library, Tableau, D3.js, Gephi.

**Module 4: Diverse Types of Visual Analysis & Visualization of Streaming Data (9 Hours)**

Time- Series data visualization – Text data visualization – Multivariate data visualization and case Studies Best practices of Data Streaming, processing streaming data for visualization, presenting Streaming data, streaming visualization techniques, streaming analysis

**Module 5: Geo Spatial Visualization** **(9 Hours)**

Chloropleth map, Hexagonal Binning, Dot map, Cluster map, cartogram map

Visualization Dashboard Creations - Dashboard creation using visualization tools for theuse cases: Finance-marketing-insurance-healthcare etc.,

**Course Designed by** **Approved by** **Principal**

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## CO - ATTAINMENT MAPPING

| Sl. No | Register Number | Student Name | CO1 | CO2 | CO3 | CO4 |
|---|---|---|---|---|---|---|
| 1 | 17TD2001 | ABDUL RAHMAN.H | ✓ | ✓ | ✓ | ✓ |
| 2 | 17TD2002 | DEVIKA.P | ✓ | ✓ | ✓ | ✓ |
| 3 | 17TD2003 | EGALAKSHMI.P | ✓ | ✓ | ✓ | ✓ |
| 4 | 17TD2004 | ESHWAR. R | ✓ | ✓ | ✓ | ✓ |
| 5 | 17TD2006 | HARINI .S | ✓ | ✓ | ✓ | ✓ |
| 6 | 17TD2008 | JAYABHARATHI .M | ✓ | ✓ | ✓ | ✓ |
| 7 | 17TD2009 | JAYADHARANI. V | ✓ | ✓ | ✓ | ✓ |
| 8 | 17TD2010 | KEERTHANA.C | ✓ | ✓ | ✓ | ✓ |
| 9 | 17TD2011 | KOWSAR BEGUM.A | ✓ | ✓ | ✓ | ✓ |
| 10 | 17TD2012 | NISHA ESWARI.M | ✓ | ✓ | ✓ | ✓ |
| 11 | 17TD2013 | PAVITHRA.S | ✓ | ✓ | ✓ | ✓ |
| 12 | 17TD2015 | PRIYADHARSHINI.S | ✓ | ✓ | ✓ | ✓ |
| 13 | 17TD2016 | RAGHUL.M | ✓ | ✓ | ✓ | ✓ |
| 14 | 17TD2017 | RANJANI.R | ✓ | ✓ | ✓ | ✓ |
| 15 | 17TDL024 | ALEX ZANDER.C | ✓ | ✓ | ✓ | ✓ |

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## VALUE ADDED COURSES

**2018-2019**

**Department of Computer Science and Engineering**

**18CSE03- Data Visualization and Presentation**

**COURSE PLAN**

| S.no | Date | Hours | Time | Topic | Resource Person |
|---|---|---|---|---|---|
| DAY -1 | | | | | |
| 1 | 09.08.18 | 1,2 | 9AM -11AM | Overview of data visualization - Data Abstraction - Task Abstraction | Mr.C.Reikha & P.Karthikeyan |
| 2 | | 3,4 | 11.15AM – 1.15 PM | Analysis: Four Levels for Validation Visual Variables- Networks and Trees | Mr.C.Reikha |
| 3 | | 5,6 | 2 PM -4PM | Map Color and Other Channels- Manipulate View- Heat Map | P.Karthikeyan |
| DAY 2 | | | | | |
| 4 | 10.08.18 | 7,8 | 9AM -11AM | Scalar and Point techniques – Color maps – | Mr.C.Reikha |
| 5 | | 9,10, | 11.15AM – 1.15 PM | Contouring – Height Plots - Vector visualization techniques – Vector properties – Vector Glyphs – | P.Karthikeyan |
| 6 | | 11,12 | 2 PM -4PM | Vector Color Coding – Matrix visualization techniques | Mr.C.Reikha |
| DAY -3 | | | | | |
| 7 | 11.08.22 | 13,14 | 9AM -11AM | Introduction to various data visualization tools | P.Karthikeyan |
| 8 | | 15,16 | 11.15AM – 1.15 PM | R –basics, Data preprocessing, Statistical analysis | Mr.C.Reikha |
| 9 | | 17,18 | 2 PM -4PM | Plotly and g g plot library, Tableau, D3.js, Gephi | P.Karthikeyan |

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| | | | | | |
|---|---|---|---|---|---|
| DAY -4 | | | | | |
| 10 | 12.08.18 | 19,20 | 9AM -11AM | Time- Series data visualization – Text data visualization – | Mr.C.Reikha |
| 11 | | 21,22 | 11.15AM – 1.15 PM | Multivariate data visualization and case Studies Best practices of Data Streaming, processing streaming data for visualization, presenting Streaming | P.Karthikeyan |
| 12 | | 23,24 | 2 PM -4PM | data, streaming visualization techniques, streaming analysis | Mr.C.Reikha |
| DAY -5 | | | | | |
| 13 | 13.08.18 | 25,26 | 9AM -11AM | Chloropleth map, Hexagonal Binning, Dot map. | P.Karthikeyan |
| 14 | | 27,28 | 11.15AM – 1.15 PM | Cluster map, cartogram map Visualization Dashboard Creations | Mr.C.Reikha |
| 15 | | 29,30 | 2 PM -4PM | Dashboard creation using visualization tools for theuse cases: Finance-marketing-insurance-healthcare. | P.Karthikeyan |

***ASESSMENT EXAM WILL BE CONDUCTED AFTER ONE WEEK OF COURSE COMPLETION ****

**BREAK TIME: 11.00 TO 11.15 AM** **LUNCH BREAK: 1.15 PM TO 2.00 PM**

COURSE DESIGNED BY
Mr. G. PRAKASAM

APPROVED BY
SKILL DEVELOPMENT TEAM

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**VALUE ADDED COURSES**
**2018-2019**

**Department of Computer Science and Engineering**

**EVENT REPORT**

Name of the Course: 18CSE03- Data Visualization and Presentation

Name of the Instructors: Mr.C.Reikha & P.Karthikeyan

Year/ Branch: II/ CSE

Duration of Course: 30 Hours (09-08-2018 to 13-08-2018)

Assessment Date: 20.08.2018

**Post Event Summary:**

The course was inaugurated on 09-08-2018 at 9.30 A.M. by our respectable principal and sessions were continued as per the schedule. Students were enriched their knowledge by attending the course. Finally, the course concluded by vote of thanks.

On 20.08.2018 assessment was conducted and feedbacks were collected from all the participants.

**CO - Attainment:**

**CO1:** Identify the different data types, visualization types to bring out the insight.

**CO2:** Relate the visualization towards the problem based on the dataset to analyze and bring out valuable insight on large dataset.

**CO3:** Design visualization dashboard to support the decision making on large scale data.

**CO4:** Demonstrate the analysis of large dataset using various visualization techniques and tools.

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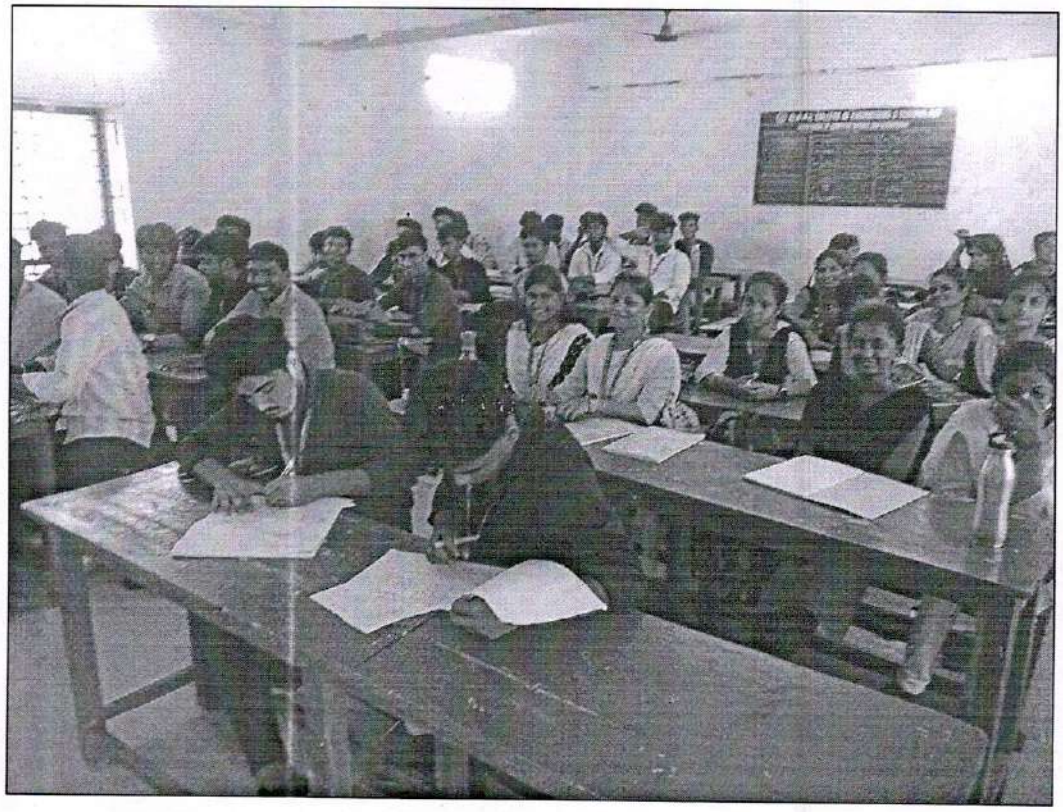
**Value Added Course On Data Visualization And Presentation 2018-19**



Analysis: Four Levels for Validation Visual Variables on 09.08.18

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