

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

From

01/08/2018

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

of Engi

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,

Ms. R. Ranjani

AP/CSE

Dr. S. SEENUX

DRTHI, M.E., Ph.C.

RAAK College of Engineering & Technology No.1, Muthupillai Palayam Road, Sulthanpet Post,



(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 "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

Circulation to:

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

Copy to:

1. All HoDs

2. Office ngineerin

Dr. S. SEENUVASAMURTHI, M.E., Ph.C.

PRINCIPAL

RAAK College of Engineering & Technology No.1, Muthupillai Palayam Road, Sulthanpet Post.





(Approved by AICTE, New Delhi, Affiliated to Pondicherry University) NO:1, MUTHUPILLAI PALAYAM ROAD, G.N. PALAYAM, VILLIYANUR, PUDUCHERRY - 605 110

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

MURTHI, M.E., Ph.E.

Dr. S. SEENUVA

RAAK College of Engineering & Technology Muthupillal Palayam Road, Puducherry - 605 Physicom

raakengg@mail.com



COLLEGE OF ENGINEERING AND TECHNOLOGY

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

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 and implement Decision Support systems
- 5. Familiarizeontheprocessesneededtodevelop, report, and analyze business data.

Module 1: Introduction

(9 Hours)

 $Introduction, Audio-visual Content Analysis, Video indexing, Browsing, Abstraction, MPEG-7\ Standard.$

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

Approved by

Principal

Dr. S. SEENUVASAMURTHI, M.E., Ph.C.

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Sulthanpet Post, Puducherry - 605 110



COLLEGE OF ENGINEERING AND TECHNOLOGY

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CO - ATTAINMENT MAPPING

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



Dr. S. SEENUVASAMURTHI, M.E., Ph.C.
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,

Sulthanpet Post, Puducherry - 605 110





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

VALUE ADDED COURSES

2018-2019

Department of Computer Science and Engineering 18CSE01- Business Intelligence and Analytics COURSE PLAN

			DAY -1	-	
1		1,2	9AM -11AM	Introduction, Audio- visualContentAnalysis	Dr.P.Ramachandiran & Mr.R.Sathishkumar
2 09	09.08.18	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		7,8	9AM -11AM	Visual content analysis	Dr.P.Ramachandiran
5 10	0.08.18	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 11		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
100	The second		DAY -4		
10		19,20	9AM -11AM	Speaker identification for movies.	Dr.P.Ramachandiran
11 12	.08.18	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 × RAAK Bolou	Co48.	25,26	9AM -11AM	Scene-based movie summarization- Dr. S. SEE overview.	N VI ASSAITUSHKUU AM. PRINCIPAL

No.1, Muthupillai Palayam Road, Sulthanpet Post,



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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

BREAK TIME: 11.00 TO 11.15 AM

LUNCH BREAK: 1.15 PM TO 2.00 PM

Ms. R. RANJANI

SKILL DEVELOPMENT TEAM

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Dr. S. SEENUVASAMURTHI, M.E., Ph.C.

PRINCIPAL

RAAK College of Engineering & Technology No.1, Muthupillai Palayam Road, Sulthanpet Post,





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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



Dr. S. SEENUVASAMURTHI, M.E., Ph.C.

PRINCIPAL

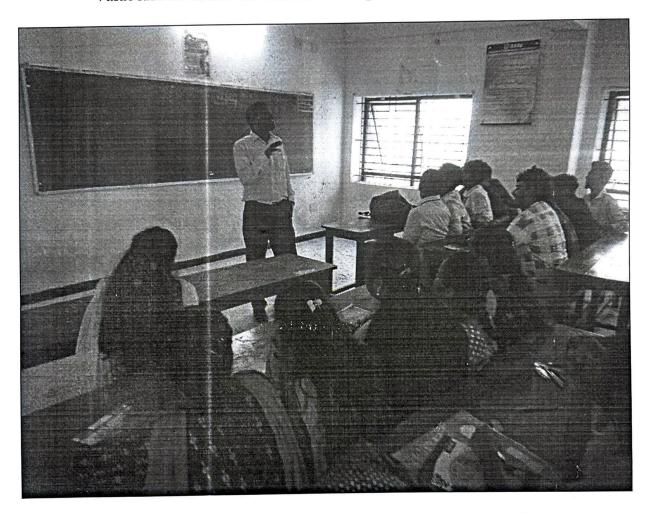
RAAK College of Engineering & Technology No.1, Muthupillai Palayam Road, Sulthanpet Post,





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Value Added Course On Business Intelligence and Analytics 2018-19



Mold Volume & Parting Surface Creation on 09.08.18

& Techno

Dr. S. SEENUVASAMURTHI, M.E., Ph.C..
PRINCIPAL

AAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post, Puducherry - 605 110.



COLLEGE OF ENGINEERING AND TECHNOLOGY

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

From

01/08/2018

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,

Mr. S. Udayakumar

AP/CSE

Dr. S. SEENUVASAMURTHI, M.E., Ph.C.





COLLEGE OF ENGINEERING AND 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:

- All HoDs
- 2. Office

Dr. S. SEENUVAŠAMURTHI, M.E., Ph.C. PRINCIPAL







(Approved by AICTE, New Delhi, Affiliated to Pondicherry University)
NO:1, MUTHUPILLAI PALAYAM ROAD, G.N. PALAYAM, VILLIYANUR, PUDUCHERRY - 605 110

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



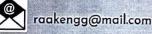
PRINCIPAL

Sivakumar

Dr. S. SEENUVASANURTHI, M.E., Ph.C.

RAAK College of Engineering & Technology
No.1 Anthupillai Palayam Road.

Puducherry - 605 179g.com





COLLEGE OF ENGINEERING AND TECHNOLOGY

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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

Sechnology & Sechn

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RAAK College of Engineering & Technology No.1, Muthupillai Palayam Road, Sulthanpet Post,



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Module 2: Evolutionary Systems

(9 Hours)

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

Engineerin

Principal

Dr. S. SEENUVASAMURTHI, M.E., Ph.C. PRINCIPAL

RAAK College/of Engineering & Technology No.1, Muthupillai Palayam Road, Sulthanpet Post,





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

CO - ATTAINMENT MAPPING

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



Dr. S. SEENUVASAMURTHI, M.E., Ph.C.



COLLEGE OF ENGINEERING AND TECHNOLOGY

[Approved by AKTE, New Delhi & Affiliated to Pondicherry University]

VALUE ADDED COURSES 2018-2019

Department of Computer Science and Engineering 18CSE02- Nature Inspired Computing

COURSE PLAN

S.no	Date	Hours	Time	-	
				Y-1	Faculty details
1		1,2	9AM -11AM	Computational Problems, Decision Problem, Optimization Problem,	D.Faul 2
2	09.08.18	3,4	11.15AM - 1.15 P	Hardness in Optimization	P.Karthikeyan
3	5,	5,6	2 PM -4PM	Tackling NP-Hard problems, Rationale for seeking inspiration from nature	Mr.C.Reikha
			DAY	2	
4		7,8	9AM -11AM	Pillars of Evolutionary Theory, The Genotype, Artificial Evolution,	P.Karthikeyan
5	10.08.18	9,10,	11.15AM – 1.15 PM	Initial Population	Mr.C.Reikha
6		11,12	2 PM -4PM	Evolutionary Measures, Types of Evolutionary Algorithms	P.Karthikeyan
			DAY -3	governing	
, :	11.08.18	13,14	9AM -11AM	Particle Swarm Optimization Algorithm, Hybrid PSO algorithms, Ant Colony Optimization,	Mr.C.Reikha
		15,16	l1.15AM – 1.15 PM	Artificial Bee Colony, Firefly Algorithm - History, Mathematical model of neuron, ANN architectures,	P.Karthikeyan



Dr. S. SEENUVASAMURTHI, M.E., Ph.E.



COLLEGE OF ENGINEERING AND TECHNOLOGY

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Part						
10 19,20 9AM -11AM 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 Development in Behavioral Systems Evolution and Development in Behavioral Systems Evolution and Development in Behavioral Systems P.Karthikeyan 13 25,26 9AM -11AM DNA Computing: Motivation, DNA Molecule , Adleman's experiment Test tube programming language, Universal DNA Computers , PAM Model , Splicing Systems , Lipton's Solution to SAT Problem P.Karthikeyan P.Karthike	9		17,18	2 PM -4PM	propagation Network, Back propagation learning and its applications,	Mr.C.Reikha
10 19,20 9AM -11AM 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 Development in Behavioral Systems Evolution and Development in Behavioral Systems Evolution and Development in Behavioral Systems P.Karthikeyan 13 25,26 9AM -11AM DNA Computing: Motivation, DNA Molecule , Adleman's experiment Test tube programming language, Universal DNA Computers , PAM Model , Splicing Systems , Lipton's Solution to SAT Problem P.Karthikeyan P.Karthike				DAY -4		
for Robots , Robots as Biological Models, Robot Learning , Evolution of Behavioral Systems Evolution and 23,24 2 PM -4PM Elearning in Behavioral Systems, Evolution and Neural Development in Behavioral Systems DAY -5 DNA Computing: Motivation, DNA Molecule , Adleman's experiment Test tube programming language, Universal DNA Computers , PAM Model , Splicing Systems , Lipton's Solution to SAT Problem 29,30 2 PM -4PM Computing From Classical to DNA Computing , From Classical t	10		19,20	9AM -11AM	Science, Behavior in Artificial Intelligence, Behavior-Based	P.Karthikeyan
23,24 2 PM -4PM Systems, Evolution and Neural Development in Behavioral Systems DAY -5 DNA Computing: Motivation, DNA Molecule , Adleman's experiment Test tube programming language, Universal DNA Computers, PAM Model , Splicing Systems , Lipton's Solution to SAT Problem 29,30 2 PM -4PM Systems, Evolution and Neural Development in Behavioral Systems Motivation, DNA Molecule , Adleman's experiment Test tube programming language, Universal DNA Computers, PAM Model , Splicing Systems , Lipton's Solution to SAT Problem Scope of DNA computing , From Classical to DNA Computing , From Classical to DNA Computing	11	12.08.18	21,22	11.15AM – 1.15 PM	for Robots, Robots as Biological Models, Robot Learning, Evolution of Behavioral Systems Evolution and	Mr.C.Reikha
13 25,26 9AM -11AM DNA Computing: Motivation, DNA Molecule, Adleman's experiment Test tube programming language, Universal DNA Computers, PAM Model, Splicing Systems, Lipton's Solution to SAT Problem 29,30 2 PM -4PM DNA Computing: Motivation, DNA Mr.C.Reikha Mr.C.Reikha Mr.C.Reikha Mr.C.Reikha Mr.C.Reikha Computing, From Classical to DNA Computing	12		23,24	2 PM -4PM	Systems, Evolution and Neural Development in	P.Karthikeyan
13 25,26 9AM -11AM Motivation, DNA Molecule, Adleman's experiment Test tube programming language, Universal DNA Computers, PAM Model, Splicing Systems, Lipton's Solution to SAT Problem 29,30 2 PM -4PM Scope of DNA computing, From Classical to DNA Computing Mr.C.Reikha Mr.C.Reikha Mr.C.Reikha Mr.C.Reikha Computing				DAY -5		
14 13.08.18 27,28 11.15AM – 1.15 PM programming language, Universal DNA Computers, PAM Model, Splicing Systems, Lipton's Solution to SAT Problem 29,30 2 PM -4PM Scope of DNA computing, From Classical to DNA Computing Mr.C.Reikha Computing	13		25,26	9AM -11AM	Motivation, DNA Molecule, Adleman's	Mr.C.Reikha
Scope of DNA computing , From Classical to DNA Computing	14	13.08.18	27,28	11.15AM – 1.15 PM	Test tube programming language, Universal DNA Computers, PAM Model, Splicing Systems, Lipton's Solution to SAT	P.Karthikeyan
ASSSSMENT FYAM WILL BE CONDUCTED AFTER ONE WEEK OF COURSE COMPLETION *	15				Scope of DNA computing, From Classical to DNA Computing	
ASESSIVENT EXAM WILL BE CONDUCTED AT THE PROPERTY OF THE PROPE		***ASESSMEN	T EXAM WIL	L BE CONDUCTED AFTER	ONE WEEK OF COURSE CON	IPLETION ****

BREAK TIME: 11.00 TO 11.15 AM

LUNCH BREAK: 1.15 PM TO 2.00 PM

COURSE DESIGNED BY
Mr. S. DAYAKUMAR

ABOIOUN

AB

APPROVED BY

PRINCIPAL

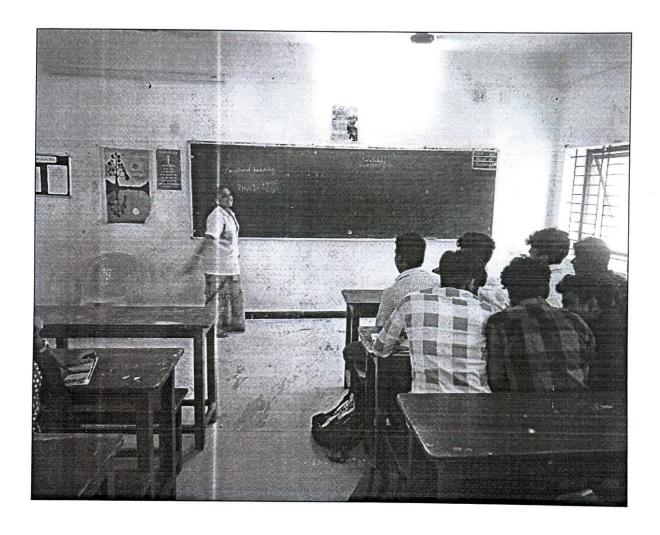
SKILL DEVELOPMENT TEAM Dr. S. SEENUVASAMURTHI, M.E., Ph.C. PRINCIPAL



COLLEGE OF ENGINEERING AND TECHNOLOGY

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

Value Added Course On Nature Inspired Computing 208-19



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



Dr. S. SEENUVASAMURTHI, M.E., Ph.C.,
PRINCIPAL



COLLEGE OF ENGINEERING AND TECHNOLOGY

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

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.

Dr. S. SEENUVASAMURTHI, M.E., Ph.C.

RAAK College of Engineering & Technology No.1, Muthupillai Palayam Road, Sulthanpet Post,



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

From

01/08/2018

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

Engineeri

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

Dr. S. SEENUX

URTHI, M.E., Ph.C.

RAAK College of Engineering & Technology No.1, Muthupillai Palayam Road, Sulthanpet Post,



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

RAAK College of

Dr. S. SEENUVASAMURTHI, M.E., Ph.C.

PRINCIPAL





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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



PRINCIPAL

Dr. A. Sivokumar

Dr. S. SEENUVASAMURT II, M.E., Ph.L.

PRINCIPAL

PRINCIPAL

RAAK College of Engineering & Technology

Muthupillai Palayam Road,

Sumbannes Post,

Sumbannes Po





COLLEGE OF ENGINEERING AND TECHNOLOGY

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

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

Principal

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URTHI, M.E., Ph.C. RAAK College of Engineering & Technology No.1, Muthupillai Palayam Road, Sulthanpet Post,



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CO - ATTAINMENT MAPPING

SI. No	Register Number	Student Name	CO1	CO2	CO3	CO4
1	17TD2001	ABDUL RAHMAN.H	1	✓	✓	✓
2	17TD2002	DEVIKA.P	✓	✓	✓	✓
3	17TD2003	EGALAKSHMI.P	✓	✓	✓	✓
4	17TD2004	ESHWAR. R	✓	✓	✓	✓
5	17TD2006	HARINI .S	✓	✓	✓	✓
6	17TD2008	JAYABHARATHI .M		✓	✓	✓
7	17TD2009	JAYADHARANI. V	✓	✓	✓	1
8	17TD2010	KEERTHANA.C	1	✓	✓	✓
9	17TD2011	KOWSAR BEGUM.A	✓	✓	✓	✓
10	17TD2012	NISHA ESWARI.M	1	✓	✓	✓
11	17TD2013	PAVITHRA.S	✓	✓.	✓	s
12	17TD2015	PRIYADHARSHINI.S	1	✓	✓	√ √
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

Date	Hours	Time	Topic	Resource Person
5010	110013	DAY-1	- F	
	1,2	9AM -11AM	Overview of data visualization - Data Abstraction - Task Abstraction	Mr.C.Reikha & P.Karthikeyan
09.08.18	3,4	11.15AM – 1.15 PM	Analysis: Four Levels for Validation Visual Variables- Networks and Trees	Mr.C.Reikha
	5,6	2 PM -4PM	Map Color and Other Channels- Manipulate View- Heat Map	P.Karthikeyan
		DAY 2		
	7,8	9AM -11AM	techniques - Color	Mr.C.Reikha
10.08.18	9,10,	11.15AM – 1.15 PM	Contouring – Height Plots - Vector visualization techniques – Vector properties – Vector	P.Karthikeyan
	11,12	2 PM -4PM	Vector Color Coding – Matrix visualization techniques	Mr.C.Reikha
		DAY -3		
	13,14	9AM -11AM	Introduction to various data visualization tools	P.Karthikeyan
	15,16	11.15AM – 1.15 PM	R -basics, Data preprocessing, Statistical analysis	Mr.C.Reikha
11.08.22	17,18	2 PM -4PM	Plotly and g g plot library, Tableau, D3.js, Gephi Dr. S. SEENWAS	P.Karthikeyan
	10.08.18	. 1,2 09.08.18 3,4 5,6 7,8 10.08.18 9,10, 11,12 13,14 15,16 11.08.22	1,2 9AM -11AM 09.08.18 3,4 11.15AM - 1.15 PM 5,6 2 PM -4PM DAY 2 7,8 9AM -11AM 10.08.18 9,10, 11.15AM - 1.15 PM 11,12 2 PM -4PM DAY -3 13,14 9AM -11AM 15,16 11.15AM - 1.15 PM	DAY-1 1,2 9AM-11AM Overview of data visualization - Data Abstraction - Task Abstra



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			DAY -4	•	3
10		19,20	9AM -11AM	Time- Series data visualization – Text data visualization –	Mr.C.Reikha
11	12.08.18	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		25,26	9AM -11AM	Chloropleth map, Hexagonal Binning, Dot map.	P.Karthikeyan
14	13.08.18	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

BREAK TIME: 11.00 TO 11.15 AM

LUNCH BREAK: 1.15 PM TO 2.00 PM

COURSE DESIGNED BY Mr. G. PRAKASAM

Engineering

A RAAK

SKILL DEVELOPMENT TEAM

PRINCIPAL

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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.

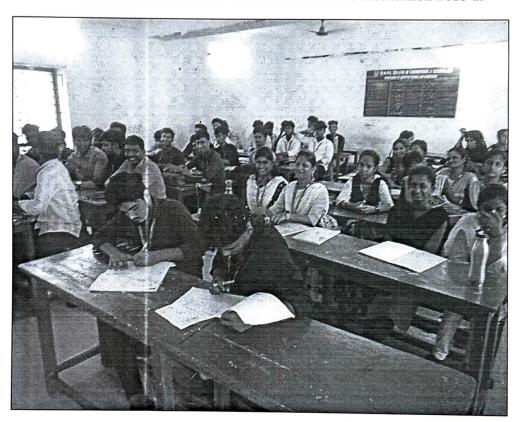
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Value Added Course On Data Visualization And Presentation 2018-19



Analysis: Four Levels for Validation Visual Variables on 09.08.18

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