

Department of Information Science & Engineering

Course: Digital Design Lab [P18ISL38]

SEM: III

Staff: BRAMESH S M

Lab Manual & Syllabus: <https://sites.google.com/view/brameshsm/2020-21-odd-sem>

Lab site introduction: <https://youtu.be/hlqorYI76cY>

Link to download tool: <https://drive.google.com/drive/folders/1c6tfbny8vxN-we8-FaB2NzTAelKRQcs3?usp=sharing>

Sl. No.	Experiment Title	Link
1	Logic Gates	https://youtu.be/5a1niMEWNNc https://youtu.be/w2uy4OM6DTU
2.	Design a circuit for Full Adder Using Logic Gates	https://youtu.be/Zxq_ZRMjcEc
3.	Application of Decoder.	https://youtu.be/5gPDpGbGpPQ
4.	Design of Ring Counter/Johnson Counter.	https://youtu.be/sfAqGVTR7rk
5.	Application of MUX/DEMUX.	https://youtu.be/cqoTrRJDhNE
6.	Tool introduction with Basic Gates simulation	https://youtu.be/wE1lqB8kz2s
7.	Simulating Full Adder	https://youtu.be/MSGfJsEjZtc
8.	Simulating 8:1 MUX	https://youtu.be/LDPOjAvsCX8
9.	Simulating D-FF	https://youtu.be/5BiN4nQrzig
10.	Simulating MOD-8 Up Counter	https://youtu.be/QB5ZKGCwVuc
11.	Simulating Ring and Johnson counter	https://youtu.be/JJtoHOuHnTY

Department of Information Science & Engineering

SEM: IV

Sl. No.	LAB	Link
1.	Design and Analysis of Algorithms Lab [P18ISL47]	<ul style="list-style-type: none">https://www.youtube.com/channel/UCB1jU1HGf5va22ZMhtPuj9w?view_as=subscriber
2.	Java Programming Lab [P18ISL48]	<ul style="list-style-type: none">https://www.youtube.com/channel/UCB1jU1HGf5va22ZMhtPuj9w?view_as=subscriber

Subject: Networks Lab [P17ISL67]

SEM: VI

LAB Manual & Syllabus: <https://sites.google.com/view/brameshsm/2019-20-even-sem>

Sl. No.	Experiment Name	Link
1.	Design a star topology for LAN using hub or switch or both by taking at least five nodes and analyze the statistics.	<ul style="list-style-type: none">https://youtu.be/a5-gHyIGI-4
2.	Design a mesh topology for five nodes and analyze the TCP, UDP statistics and FIFO queuing mechanism.	<ul style="list-style-type: none">https://youtu.be/UCx0dVtq4IA
3.	Design a scenario to integrate wired network and wireless network using Wi-Fi infrastructure mode and analyze the statistics.	<ul style="list-style-type: none">https://youtu.be/F-43NU-ooQg
4.	Using TCP/IP sockets, write a client-server program to make client sending the file name and the server to send back the contents of the requested file, if present.	<ul style="list-style-type: none">https://youtu.be/RYoWtY5SZw4
5.	Implement the above program using FIFOs as IPC channels.	<ul style="list-style-type: none">https://youtu.be/RYoWtY5SZw4

Subject: Internet of Things Lab [P17ISL68]**SEM: VI**

Sl. No.	Experiment Name	Link
1.	4. Develop an application using RasberyPi to detect an object using IR sensor.	<ul style="list-style-type: none">• https://drive.google.com/drive/folders/1tCTDh4b4O75WtkCFQ8wugcZrARfrZOMA?usp=sharing• https://drive.google.com/file/d/19Xv_UEGDa8gvhoA9IGja6R8Oh7DZMzEg/view?usp=sharing• https://drive.google.com/file/d/18wzM3b - mrfzvcbopN8RdtJhaYvkc8/view?usp=sharing
2.	5 a. Write a Program to interface temperature sensor to Arduino UNO and read the values of temperature and humidity in the given environment and turn On the LED if temperature value met the threshold value.	<ul style="list-style-type: none">• https://drive.google.com/drive/folders/1yBzKHw8e2H98DPVtDPjzE_GcgZLxYKgp?usp=sharing
	5 b. Using XCTU software, connect two different motes wirelessly and establish a duplex communication.	<ul style="list-style-type: none">• https://drive.google.com/drive/folders/1ru3hdj4RgOdRY9UAOavoNYyUPw4cm3t5?usp=sharing
3.	6. Write a Program to interface LPG sensor to Arduino UNO and read the values of a sensor in the given environment and turn on the buzzer if petroleum gas is detected value.	<ul style="list-style-type: none">• https://drive.google.com/drive/folders/1qP7CILM112qv_6iqe9qiLNm8FzielYoP?usp=sharing• https://drive.google.com/file/d/1kRMbDI1Ve6HSkJRXmg61DcOiM4Lx_Ltn/view?usp=sharing

Theory: <https://drive.google.com/drive/folders/1yLFXEp5RQbTdsMo20X5HihwqvHz2mU4n?usp=sharing>

IV Semester

Course Title: Data Base Management System
Course Code: P18IS42 Semester : IV Sem
Staff: Prabhakar T S

Unit 3

Relational Algebra and Relational Calculus: Unary relational operations, Relational Algebra operations from set theory, Binary relational operations, Additional relational operations, example of queries in relational algebra. Database Design-1: Functional Dependencies; Normal Forms Based on Primary Keys; General Definitions of Second and Third Normal Forms;

Note: Relational Algebra and Calculus was discussed in the class.

Video lectures for the remaining contents of Unit3

Functional Dependencies

Use the following links for the above topics

Functional Dependency

<https://youtu.be/dR-jJimWWHA>

Fully Functional Dependency, Partial Functional Dependency, Transitive Functional Dependency

<https://youtu.be/bWpsclz4ouY>

Armstrong's Axioms

<https://youtu.be/eIH7zRVelnw>

Finding number of candidate key

https://youtu.be/x_inLVXPISU

What is attribute closure and closure set of attribute

Normal Forms Based on Primary Keys

Use the following links for the above topics

<https://youtu.be/p-j9emhNVTg>

First Normal Form with example

<https://youtu.be/g2yF2gyaN7I>

Second Normal Form with example

<https://youtu.be/O16btzfuYU>

Third Normal Form with example

<https://youtu.be/R2Z-DgZ6QFQ>

BCNF with example

<https://youtu.be/nSnaGLtwgMc>

Unit-IV

Fourth Normal Form and Multi Valued Dependencies

<https://youtu.be/z0sz9dyFGUA>

<https://youtu.be/kGx0s5XB3j8>

<https://youtu.be/xmGUXlLcv04>

<https://youtu.be/OTCuykFHBeA>

Fifth Normal Form and Joined Dependencies

<https://youtu.be/mbj3HSK28Kk>

NoSQL, Types of NoSQL Databases in terms of storage

<https://youtu.be/6yp4Za9jBxM>

Schema-Less

<https://youtu.be/nSHSF89j9WI>

Materialized View

<https://youtu.be/06HlvmB8mDk>

Sharding

<https://youtu.be/E7GI-UKBLTc>

Unit-V

Concurrency Control

<https://youtu.be/IicR3G5w4ZI>

<https://youtu.be/d4Ziyuri0L0>

https://youtu.be/C_J6K8DodS8

How to draw precedence Graph

<https://youtu.be/U3SHusK80q0>

Serializability and Recoverability

<https://youtu.be/UGA4xjEGi-0>

Classification of Schedules

https://youtu.be/5-zY_Uz_K1s

Note: The ppt and Infosys Material already shared with students for Unit-3, 4 & 5.

Course Title: Finite Automata and Formal languages
Course Code: P18IS43 Sem: IV
Staff Name: Rakshitha M S

Unit -3

Context-Free Grammars: Examples and Definitions, More Examples, Regular Grammars, Derivation Trees and Ambiguity, Simplified Forms and Normal Forms.

Context-Free and Non- Context-Free Languages: The Pumping Lemma for Context-Free Languages, Intersections and Complements of Context-Free Languages.

Self study: An Unambiguous CFG for Algebraic Expressions

11 Hrs

1. Shared textbook PDF
 - John C Martin, Introduction to Languages and The Theory of Computations, 3rd Edition, Tata McGraw-Hill Education, 2016.
2. Lecture Notes PDF prepared by me, Assignment, Model QP.
 - Google Drive link
 - ✓ https://drive.google.com/drive/folders/1TK_DEe6QtDFuu0Egh7VHQhd10Ax4XtkN?usp=sharing
3. Youtube Video links:
 - ✓ Context Free Grammar : Examples and Definitions, More Examples, Regular Grammars,
 - <https://youtu.be/aHnB4Y1Cahg>
 - <https://youtu.be/8a2jBm5Syjs>
 - ✓ Derivation Trees and Ambiguity_
 - <https://youtu.be/uXaWLM6Oc44>
 - ✓ Derivation Trees and Ambiguity
 - <https://youtu.be/u4-rpIIv9NI>
 - <https://youtu.be/wQippolFdas>
 - ✓ Simplified Forms and Normal Forms.
 - <https://youtu.be/uXaWLM6Oc44>
 - <https://youtu.be/Mh-UQVmAxnw?list=PLBlnK6fEygRgp46KUv4ZY69yXmpwKOIev>
 - <https://youtu.be/FNPSlnj3Vt0?list=PLBlnK6fEygRgp46KUv4ZY69yXmpwKOIev>
 - <https://youtu.be/ZCbJan6CGNM?list=PLBlnK6fEygRgp46KUv4ZY69yXmpwKOIev>
 - <https://youtu.be/rauqqM0nfuI?list=PLBlnK6fEygRgp46KUv4ZY69yXmpwKOIev>
 - ✓ The Pumping Lemma for Context-Free
 - https://youtu.be/jRhqx1_KcCk
 - <https://youtu.be/eQ0XkUk3qGk>
 - <https://youtu.be/DPs8sBcIjs8>

Unit 4

Pushdown Automata: Introduction, The definition of a pushdown Automata, Deterministic Pushdown Automata, A PDA corresponding to a given Context-Free Grammar, A Context-Free Grammar corresponding to a given PDA, Parsing.

Self study: Top Down Parsing

10 Hrs

1. Lecture Notes PDF prepared by me, Assignment.
 - Google Drive link
 - https://drive.google.com/drive/folders/1TK_DEe6QtDFuu0Egh7VHQhd10Ax4XtkN?usp=sharing
2. Youtube Video links:
 - ✓ Introduction, The definition of a pushdown Automata, Deterministic Pushdown Automata
 - <https://youtu.be/F7x-uSuYgC4>
 - <https://youtu.be/-2E2QPeJvN4>
 - <https://youtu.be/m8a315t8ok8>
 - ✓ A PDA corresponding to a given Context-Free Grammar, A Context-Free Grammar corresponding to a given PDA,
 - Google Drive link
 - https://drive.google.com/drive/folders/1TK_DEe6QtDFuu0Egh7VHQhd10Ax4XtkN?usp=sharing

Unit 5

Turing Machine: Definitions and Examples, Counting a Partial function with a Turing Machine, Combining Turing Machine, Variations of Turing Machine: Multitape TM's, Nondeterministic Turing Machine, Universal Turing Machine.

Self study: Recursively Enumerable and Recursive, A Non recursive languages and an Unsolvable Problem. 10 Hrs

1. Lecture Notes PDF prepared by me, Assignment.
 - Google Drive link
 - https://drive.google.com/drive/folders/1TK_DEe6QtDFuu0Egh7VHQhd10Ax4XtkN?usp=sharing
2. Youtube Video links:
 - ✓ Turing Machine: Definitions and Examples
 - <https://youtu.be/PvLaPKPzq2I>
 - <https://youtu.be/GPSk9tRsK2I>
 - <https://youtu.be/yFEdBRR-rP9g>
 - https://youtu.be/D9eF_B8URnw
 - <https://youtu.be/cR4Re0YfoOo>
 - https://youtu.be/KW9md3j4_cU?list=PLBlnK6fEYqRgp46KUv4ZY69yXmpwKOiev
 - ✓ Multitape TM's, Nondeterministic Turing Machine, Universal Turing Machine
 - <https://youtu.be/CLLutxGVDY4?list=PLBlnK6fEYqRgp46KUv4ZY69yXmpwKOiev>
 - <https://youtu.be/gQnPM6sydkk?list=PLBlnK6fEYqRgp46KUv4ZY69yXmpwKOiev>
 - <https://youtu.be/9Bk11XgiC1E?list=PLBlnK6fEYqRgp46KUv4ZY69yXmpwKOiev>
 - https://youtu.be/eKCX-4_jzck?list=PLBlnK6fEYqRgp46KUv4ZY69yXmpwKOiev

Course Title: Design and Analysis of Algorithms
Course Code: P18IS44 Semester : VI
Staff: Vinay S

Unit 3

Divide and Conquer: Merge sort, Quick Sort, Binary Search, Binary tree traversals and related properties, Multiplication of Large integers and Strassen' Matrix Multiplication. Transform and Conquer: Balanced Search Trees, Heaps and Heap sort.

Divide and Conquer

- 1) Merge Sort: https://www.youtube.com/watch?v=EvtAjSsSo_o
- 2) Quick Sort: <https://www.geeksforgeeks.org/quick-sort/>
- 3) Binary Search: <https://www.geeksforgeeks.org/binary-search/>
- 4) Multiplication of Large Integers: <https://www.youtube.com/watch?v=engpSnUTTqk>
- 5) Strassen' Matrix Multiplication: <https://www.youtube.com/watch?v=0oJyNmEbS4w>

Transform and Conquer

- 1) Balanced Search Trees: https://www.youtube.com/watch?v=jDM6_TnYlqE
- 2) Heaps and Heap Sort: <https://www.youtube.com/watch?v=ZDReFSbWVAA>

Unit 4

Space and Time Tradeoffs: Sorting by counting, Input Enhancement in String Matching, Hashing, B-Trees. Dynamic Programming: Computing a Binomial Coefficient, Warshall's and Floyd's Algorithms, the Knapsack Problem and Memory functions

Space and Time Tradeoffs

Sorting by counting: <https://www.youtube.com/watch?v=ykm6Yk9tRxQ>

Input Enhancement in String Matching: <https://www.youtube.com/watch?v=QZq419Z6b3s>

Hashing: <https://www.youtube.com/watch?v=-9zWTgZpRJK>

B-Trees: <https://www.geeksforgeeks.org/introduction-of-b-tree-2/>

Dynamic Programming

Computing a Binomial Coefficient: <https://www.geeksforgeeks.org/binomial-coefficient-dp-9/>

Warshall's Algorithm: <https://www.youtube.com/watch?v=MpCeQHP17Dg>

Floyd's Algorithms: <https://www.youtube.com/watch?v=MpCeQHP17Dg>

The Knapsack Problem and Memory functions:

<https://www.youtube.com/watch?v=LH4zR5mtatU>

Unit 5

Greedy Technique: Prim's Algorithm, Kruskal's Algorithm, Dijkstra's Algorithm, Huffman Trees. Limitations of Algorithm Power: P, NP and NP- Complete Problems. Coping with the Limitations of Algorithm Power: Backtracking: n-Queens Problem, Subset-Sum Problem, Branch and Bound: Knapsack Problem.

Greedy Technique

Prim's Algorithm : <https://www.youtube.com/watch?v=PBAGtpsClso>

Kruskal's Algorithm : <https://www.youtube.com/watch?v=pVz13HleEX8>

Dijkstra's Algorithm: <https://www.geeksforgeeks.org/dijkstras-shortest-path-algorithm-greedy-algo-7/>

Huffman Trees: <https://www.geeksforgeeks.org/huffman-coding-greedy-algo-3/>

Limitations of Algorithm Power

P, NP and NP- Complete Problems: Notes link

<https://drive.google.com/open?id=19mgqRTA6Vw7z6wnVbI8s0ZxtH3l28scc>

Coping with the Limitations of Algorithm Power

Backtracking:

n-Queens Problem : https://www.youtube.com/watch?v=xFv_Hl4B83A

Subset-Sum Problem: <https://www.youtube.com/watch?v=kyLxTdsT8ws>

Branch and Bound

Knapsack Problem: https://www.youtube.com/watch?v=yV1d-b_NeK8

Course Title: AVR Microcontroller

Course Code: P18IS46

Semester : IV

Staff: Puttaswamy B S

I already complete Unit-1 and Unit-3 in class hours

Unit 2:

Branch instruction and looping in AVR: looping in AVR, other conditional jumps, unconditional branch instruction. Call instructions and Stack: CALL, RCALL, and ICALL. I/O port programming in AVR, I/O Bit-manipulation programming.

Self-study components: AVR time delay: time delay calculation for AVR.

Video lectures for the contents of Unit - 2

Branch instruction and looping in AVR:

Looping in AVR, Loop inside a Loop, Looping 10,000 times, Other conditional jumps, unconditional jumps

Use the following links for the above topics

- <https://youtu.be/AHpRzpCSvJs>

CALL instruction and Stack:

Introduction to subroutine, CALL, how stacks are accessed in the AVR, pushing onto the Stack, popping from the stack, initializing the stack pointer, CALL instruction and the role of the stack, RET instruction and the role of the stack, upper limit of the stack, RCALL, ICALL.

Use the following links for the above topics

- <https://youtu.be/-1XToqEraxM>
- <https://youtu.be/5WenymqHm2M>

I/O port programming in AVR:

I/O port pins and their functions, DDRx register role in outputting data, DDR register role in inputting data, PIN register role in inputting data, PORT register role in inputting data, PORTA, PORTA as input, PORTB, PORTB as input, Dual role of PORTS A and B, PORTC, PORTC as input, PORTD, PORTD as input, dual role of ports C and D.

Use the following links for the above topics

- <https://youtu.be/Q9b-h5SBpxg>
- <https://youtu.be/fwDndHr2MJE>

I/O bit manipulation programming in AVR:

I/O ports and bit addressability, SBI, CBI, SBIS, SBIC,

Use the following links for the above topics

- <https://youtu.be/Q9b-h5SBpxg>

Note: The lecture notes and PPTs for the Unit-2, Unit-4 and Unit-5 prepared and it is attached in the below links and create whatsapp group for clarifying the doubts. Also create Google classroom for giving assignment of each topic.

The following link is for Lecture notes, videos & PPTs (UNIT-3, UNIT-4 & UNIT-5).

<https://drive.google.com/drive/u/0/folders/1jdBIRiH8xnVfv0MLVfs3xeue8gKKun2y>

Course Title: SOFTWARE ENGINEERING
Course Code: P18IS45 Semester: IV
Staff: Suresh M R

UNIT III

Critical System, Verification and Validation

Dependability: critical systems, availability and reliability, safety, security; critical system specification, verification and validation: Verification and Validation: Planning; Software inspections; Automated static analysis, clean room software development; software testing: defect testing, integration testing, object oriented testing, testing workbenches.

Self Study Component: V&V

PPT shared link: <https://s.docworkspace.com/d/AJb61P76iuJE4dGsp8GdFA>

VI Semester

Course Title: Object Oriented System Development
Course Code: P17IS61 Sem: VI
Staff Name: Rakshitha M S

Unit - III

System Conception: Devising a system concept; Elaborating a concept; Preparing a problem statement. **Domain Analysis:** Overview of analysis; Domain class model; Domain state model; Domain Interaction model; Iterating the analysis.

Application Analysis: Application interaction model; Application class model; Application state model. Self Study: Adding operations. 10 Hours

PPT prepared by me, Assignment, Model QP

Google drive link:

https://drive.google.com/drive/folders/1eQQTRT43Y4w2622m_fzhM8MX-3qEuvrh?usp=sharing

Unit - IV

System design: Overview of system design; Estimating performance; Making a reuse plan; Breaking a system in to sub-systems; Identifying concurrency; Allocation of sub-systems; Management of data storage; Handling global resources; Choosing a software control strategy; Handling boundary conditions; Setting the trade-off priorities; Common architectural styles; Architecture of the ATM system as the example.

Class Design: Overview of class design; Bridging the gap; Realizing use cases; Designing algorithms; Recursing downwards, Refactoring; Design optimization; Reification of behavior; Adjustment of inheritance. 11 Hours

Self Study: Organizing a class design; ATM example.

PPT prepared by me, Assignment

Google drive link:

https://drive.google.com/drive/folders/1eQQTRT43Y4w2622m_fzhM8MX-3qEuvrh?usp=sharing

Video link

Unit 3 and Unit 4

UML- Class Diagram

<https://youtu.be/UI6lqHOVHic>

UML Use Case Diagram

<https://youtu.be/zid-MVo7M-E>

UML State Diagrams

https://youtu.be/6TFVzBW7oo?list=PL_RvSWIduMYEZd6M7M0e5vSM_e0Jw5hUJ

Unit V

Design Patterns: What is a pattern and what makes a pattern? Pattern categories; Relationships between patterns; Pattern description Communication Patterns: Forwarder-Receiver; Client-Dispatcher-Server; Publisher-Subscriber, Management Patterns: Command processor; View handler.

Metrics: Product quality metrics; In-process quality metrics; Metrics for software maintenance; Design and complexity metrics; Productivity metrics; Quality and quality management metrics.

10 Hours

Self Study: Lessons learned for OO projects.

PPT prepared by me, Textbook PDF, Assignment

Google drive link:

https://drive.google.com/drive/folders/1eQQTRT43Y4w2622m_fzhM8MX-3gEuvrh?usp=sharing

Unit 5

Video link

Design Patterns

<https://www.youtube.com/watch?v=z3SRC2ckJhI>

Command Design Pattern

<https://youtu.be/6x2TLmp1jc>

Computer Networks: Sixth semester

Faculty: Dr.Sanjay.H.M

Associate Professor, ISE

PESCE, Mandya

Note: Kindly go through the related Links provided below and the PDF documents are available in whatsapp group shortly along with voice over session

Unit 3: Application layer

Topic 1: Introduction and DNS features

<https://www.youtube.com/watch?v=1-DoplhJj5M&list=PL-bZp8Qhr-SblOUugYZPS2xrIe9BJeOfj>

<https://www.youtube.com/watch?v=DfaN-YTDNyE>: DNS Simulation features and working aspects

Topic 2: UDP and TCP design principles

<file:///C:/Users/cs/Downloads/DesignandImplementationonaServerreceivingDatainbothformsTCPandUDPjune152017.pdf>

Topic 3: FTP and HTTP

<https://www.youtube.com/watch?v=7v3GDgvdWO4> : FTP

https://www.youtube.com/watch?v=m8_IP74PEm8: FTP working in simulation mode using packet tracer

<https://www.youtube.com/watch?v=0OrmKCB0UrQ>: HTTP

Topic 4: Telnet and SSH

<https://www.youtube.com/watch?v=O6DvLz9AXXo>: SSH Simulation and explanation

<https://www.youtube.com/watch?v=YsEb3jG9Bsg> : Telnet configuration and simulation

Sessions 1 to 5 Link

https://drive.google.com/drive/folders/1ZWlwJ_djw_IQ13l-sG6Ze1ReAbaKwWwz

Unit 3

Radio Frequency Identification Technology Overview Introduction, Principals of RFID, Components of RFID system, Reader, RFID tag, RFID Middleware, RFID Applications, and Related Research Issues: introduction, Concepts and Terminology, Radio Frequency Identification, Transponder classes, standards, RFID system architecture, other related technologies, RFID applications, logistic and supply chain, production, monitoring and maintenance, product safety, quality and information, access control and tracking and tracing of individuals, ongoing research projects, hardware issues, protocols, product safety, quality and information, access control and tracking and tracing of individuals, ongoing research projects, hardware issues, protocols, Wireless Sensor Networks Technology and Overview: the node, communication, computation, sensing, energy, networking nodes, MAC, multi-hop routing, securing communication,. **Self Study: Study of various RFID applications**

Video lectures for the contents of Unit3

Introduction, Principals of RFID, Components of RFID system, Reader, RFID tag, RFID Middleware,

Use the following links for the above topics

- <https://www.youtube.com/watch?v=Ukfpq71BoMo&t=125s>
- <https://www.youtube.com/watch?v=hBBiMY24yeg>
- <https://www.youtube.com/watch?v=MpGLdJ2J0R0>
- <https://www.youtube.com/watch?v=guae2NN2AYQ>

Radio Frequency Identification, Transponder classes, standards, RFID system architecture, other related technologies, RFID applications, logistic and supply chain, production, monitoring and maintenance, product safety, quality and information, access control and tracking and tracing of individuals, ongoing research projects, hardware issues, protocols, product safety, quality and information, access control and tracking and tracing of individuals

Use the following links for the above topics

- <https://www.youtube.com/watch?v=B1BYhoRORb0>
- <https://www.youtube.com/watch?v=anbe-pnCAwM&list=PLt8Mw0pKzAMrIYx61ai9UqlYXb2xylhTK>
- <https://www.youtube.com/watch?v=pqXCwG3LfQ0>

Wireless Sensor Networks Technology and Overview: the node, communication, computation, sensing, energy, networking nodes, MAC, multi-hop routing, securing communication,

Use the following links for the above topics

- https://www.youtube.com/watch?v=GUSrkWJ_Z2g
- <https://www.youtube.com/watch?v=IwE-FegRjls>
- <https://www.youtube.com/watch?v=sx0UPzZtC5o>
- <https://www.youtube.com/watch?v=b5chVFfn3kH0>
- <https://www.youtube.com/watch?v=VWJ8GmYnjTs>
- <https://www.youtube.com/watch?v=bnoVUQ2VdNk>

The following link is for (UNIT-3, UNIT-4 & UNIT-5)

<https://drive.google.com/drive/folders/1XbGBHxooDKzsQY4PL--QxZac2bProqaF>

Course Code: P17IS64	Course Title: Data Science	Semester: VI
Staff: Bramesh S M		

Unit - III

One More Machine Learning Algorithm and Usage in Applications - Motivating application: Filtering Spam, Why Linear Regression and k-NN are poor choices for Filtering Spam, Naïve Bayes and why it works for Filtering Spam, Data Wrangling: APIs and other tools for scrapping the Web. Feature Generation and Feature Selection (Extracting Meaning From Data) – Motivating application: user (customer) retention, Feature Generation (brainstorming, role of domain expertise, and place for imagination), Feature Selection algorithms, Filters; Wrappers; Decision Trees. **Self-study component:** Random Forests.

Topics:

Filtering Spam, Why Linear Regression and k-NN are poor choices for Filtering Spam, Naïve Bayes and why it works for Filtering Spam.

Use the following links for the above topics

- <https://www.youtube.com/watch?v=Q8l0Vip5YUw>
- https://youtu.be/jSaU_iDB1Ds?list=TLPQMTEwNDIwMjAuJMrgqKUu4Q
- <https://youtu.be/gCI-ZC7irbY?list=TLPQMTEwNDIwMjAuJMrgqKUu4Q>

Topics:

Data Wrangling: APIs and other tools for scrapping the Web. Feature Generation and Feature Selection (Extracting Meaning From Data) – Motivating application: user (customer) retention, Feature Generation (brainstorming, role of domain expertise, and place for imagination), Feature Selection algorithms, Filters; Wrappers; Decision Trees.

Use the following links for the above topics

- <https://youtu.be/tuNuxCjBU3U?list=TLPQMTEwNDIwMjAuJMrgqKUu4Q>

Unit - IV

Recommendation Systems: Building a User-Facing Data Product - Algorithmic ingredients of a Recommendation Engine, Dimensionality Reduction, Singular Value Decomposition, Principal Component Analysis, Exercise: build your own recommendation system.

Mining Social-Network Graphs - Social networks as graphs, Clustering of graphs, Direct discovery of communities in graphs, Partitioning of graphs.

Use the following links for the above topics

- https://youtu.be/pAYooz_-gRM
- <https://youtu.be/EokL7E6o1AE>
- <https://www.youtube.com/watch?v=ZqXnPcyIAL8>
- <https://www.youtube.com/watch?v=KTzXVnRlnw4>
- <https://www.youtube.com/watch?v=FwbXHY8KCUw&list=PL3pGy4HtqwD2a57w17C17tmfxfk7JWJ9Y&index=15>

Unit - V

Data Visualization - Basic principles, ideas and tools for data visualization, Examples of inspiring (industry) projects, Exercise: create your own visualization of a complex dataset.

Data Science and Ethical Issues - Discussions on privacy, security, ethics, A look back at Data Science.

Use the following links for the above topics

- <https://youtu.be/D0GuCavNw9U>
- <https://drive.google.com/open?id=1-Hg1NpXdZfQrSxAvr9pdkJVUzd56ueb8>
- <https://vimeo.com/113240712>
- <https://www.youtube.com/watch?v=KTWWqUk7aYw>
- <https://www.youtube.com/watch?v=NN7uKacnHjI>
- <https://vimeo.com/50146828>
- <https://www.youtube.com/watch?v=2W8PZMV-LW8>

Interaction with the Students:

1) Interactive classes have taken through Google Meet.

Links: Meeting URL: <https://meet.google.com/vbe-evaf-xce>

Phone: +1 443-402-6482 PIN: 131 064 363#

Meeting URL: <https://meet.google.com/yyo-zhbi-zpc>

Phone: +1 478-331-6124 PIN: 750 306 796#

2) Youtube Channel created:

https://www.youtube.com/channel/UcKCrkdFZghN2rzax7wmtSdA?view_as=subscriber

Note: The Lecture notes, Syllabus, Model Question Paper, Sample R Codes, Text Book, YouTube URLs, Assignment 1 & 2 Batch Wise and R Tool are available in the below Link (UNIT-1 to UNIT-5):

<https://sites.google.com/view/brameshm/2019-20-even-sem>

Course Title: Web Technologies	
Course Code: P17IS651	Semester : VI
Staff: Geethanjali T M	

Unit 3

JAVASCRIPT AND XHTML DOCUMENTS: The Javascript execution environment, The Document Object Model: Element access in JavaScript: Events and event handling: Handling events from Body elements, Button elements, text box and Password elements Dynamic DOCUMENTS WITH JavaScript: Introduction to dynamic document Positioning elements moving elements, element visibility, Changing colors and fonts, Dynamic content. Stacking elements, locating the mouse cursor, Reacting to a mouse click, Slow movement of elements.

Video lectures for the contents of Unit3

1. Positioning of elements
 - <https://youtu.be/PuZelXGcyqM>
2. Stacking of Elements
 - <https://www.youtube.com/watch?v=vTkIcqEaOs8>
3. Mouse events
 - <https://youtu.be/8Puo5LNIilQ>
4. onmouseover, onmouseout
 - <https://youtu.be/AiiXLmqhndU>
 - https://youtu.be/0o4HQ_TYP9A
5. Event Handling
 - https://youtu.be/R_wOs8qqK4
 - <https://youtu.be/limR3GPTIbQ>
 - <https://youtu.be/1gznb8osw8g>
6. Element Visibility in JavaScript
 - https://youtu.be/A_DUCdLL-E
7. Moving of element
 - <https://youtu.be/cJtMtd2QmMM>
 - <https://youtu.be/vbnjxXCq5HQ>
8. Changing colors and fonts
 - <https://youtu.be/rm8GJkwdIIs>

Unit 1 to 4

Link:

<https://drive.google.com/file/d/1u1hRzxLVZUyI6G0QVi7dTYuQWi3FOnGrg/view?ts=5eb636d0>

Unit 5

Link:

<https://drive.google.com/open?id=16JErYyNB1g9kw85RDx3FrLcFj8kLRQDi>

Course Title: STORAGE AREA NETWORK

Course Code: P17IS662

Semester : VI

Staff: Rakshith N

Unit 3

Storage Virtualization: Definition of Storage virtualization; Implementation Considerations; Storage virtualization on Block or file level; Storage virtualization on various levels of the storage Network Symmetric and Asymmetric storage virtualization in the Network.

Video lectures for the contents of Unit3

Definition of Storage virtualization; Implementation Considerations; Storage virtualization on Block or file level

Use the following links for the above topics

- <https://www.youtube.com/watch?v=YX6TJf3YGJE>
- <https://www.youtube.com/watch?v=5EqAXnNm0FE>
- <https://www.youtube.com/watch?v=YdzeGJDChpc>
- <https://www.youtube.com/watch?v=6kz6UmXmTks>

Storage virtualization on various levels of the storage, Network Symmetric and Asymmetric storage virtualization in the Network

Use the following links for the above topics

- <https://www.youtube.com/watch?v=adBKc2xtGvQ>
- <https://www.youtube.com/watch?v=iiKLbm6bEUk>

The following link is for (UNIT-3, UNIT-4 & UNIT-5)

https://drive.google.com/drive/folders/17phAEvvBbJM_9Ji3zAuq2cs81zJ2CmZF

VIII Semester

Course Title: Big data	
Course Code: P15IS81	Semester: VIII
Staff: Prabhakar T S	

NoSQL, Types of NoSQL Databases in terms of storage

<https://youtu.be/6yp4Za9jBxM>

Schema-Less

<https://youtu.be/nSHSF89j9WI>

Materialized View

<https://youtu.be/06HlvmB8mDk>

Sharding

<https://youtu.be/E7GI-UKBLTc>

Notes of Unit-III and IV

<https://drive.google.com/drive/my-drive>

https://drive.google.com/open?id=1172kbCDMthGVFBgIqDbU_u_oJTr_u-dH

Text-Book of Big Data

<https://drive.google.com/open?id=1QF9nkHi-Ksm8wygUaTCwUa7OWHaydevC>

Unit-V

Understanding YARN Architecture

<https://www.youtube.com/watch?v=fCoivEBDmYA>

<https://www.youtube.com/watch?v=ZfbkNY6Xn94>

Exploring Hive

<https://www.youtube.com/watch?v=dQueAnZSJRM>

https://www.youtube.com/watch?v=qC_GbpPu1aU

<https://www.youtube.com/watch?v=rr17cbPGWGA>

Analyzing Data with Pig

https://www.youtube.com/watch?v=qr_awo5vz0g

<https://www.youtube.com/watch?v=GG-VRm6XnNk>

Course Title: Distributed System	
Course Code: P15IS824	Semester: VIII
Staff: Dr. Sanjay H M	

Unit - 3 & Unit -4 Link

<https://drive.google.com/drive/folders/1EC1whA2EZi-RwJdKZiArz8eDMFwoUx1s>

Course Title: Software Project Management	
Course Code: P15IS833	Semester: VIII
Staff: Suresh M R	

Lecture Notes (Unit-1 to Unit-5)

<https://drive.google.com/file/d/1JqL8j-K1Byd4ZXPAU-6V70r0pBI01ifG/view?usp=sharing>

Course Title: Robotic Process Automation	
Course Code: P15IS845	Semester: VIII
Staff: BRAMESH S M	

Interactive classes have taken for Students:

1) Interactive classes have taken through Google Meet.

Links: Meeting URL: <https://meet.google.com/xnz-atzo-ggr>

Phone: +1 361-589-8282 PIN: 755 692 273#

Note: The Lecture notes, Syllabus, Model Question Paper, Sample R Codes, Text Book, YouTube URLs, Assignment 1 & 2 Batch Wise and UiPath Studio Tool are available in the below Link (UNIT-1 to UNIT-5):

<https://sites.google.com/view/brameshsm/2019-20-even-sem>