

# DHANEKULA INSTITUTE OF ENGINEERING & TECHNOLOGY

(Approved by AICTE, New Delhi and Affiliated to JNTU, Kakinada)
An ISO 9001-2015 Certified Institution
Ganguru, Vijayawada- 521139.

# DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

# SEMESTER WISE TABLE

| ACADEMIC | EEE-I |        | EEE -II |        | EEE –III |        | EEE –IV |             |
|----------|-------|--------|---------|--------|----------|--------|---------|-------------|
| YEAR     | SEM-I | SEM-II | SEM-I   | SEM-II | SEM-I    | SEM-II | SEM-I   | SEM-II      |
| 2014-15  | PE&HV |        |         |        |          |        |         |             |
| 2015-16  | PE&HV |        |         |        |          |        | _       |             |
| 2016-17  |       |        |         |        |          |        |         |             |
| 2017-18  |       |        |         |        |          |        |         |             |
| 2018-19  |       |        |         |        |          | PE&HV  |         | <del></del> |

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Principal
DHANEKULA INSTITUTE
OF ENGINEERING AND TECHNOLOGY
Ganguru, Vijayawada-521 139



# Dhanekula Institute of Engineering & Technology (Approved by AICTE, New Delhi; Affiliated to JNTUK, Kakinada) Ganguru, Vijayawada – 521 139

Time Table

Branch: EEE Year/Sem: I B. Tech./I Sem

Academic Year: 2014-15

w.e.f: 01/09/2014

| Period/Day | 1         | 2          | 3           | 4                      | 5          | 1.10 2.00 | 6  | 7            | 8            |  |
|------------|-----------|------------|-------------|------------------------|------------|-----------|--|--------------|--------------|--|
|            | 9:00-9:50 | 9:50-10:40 | 10:40-11:30 | 11:30-12:20            | 12:20-1:10 | 1:10-2:00 | 2:00-2:50  | 2:50-3:40    | 3:40-4:30    |  |
| Mon        | M-II      | M-I        | EP          | ENG                    | PE&HV      |           | <ecsl- (lab-a)="" ep(lab-b)="" i=""></ecsl->         |              |              |  |
| Tue        | EP        | ENG        | M-I         | M-II(T-A)              | )/EP(T-B)  | L         | < EWS(LAB)/ITWS(LAB)                                 |              |              |  |
| ·Wed       | M-I       | EP         | M-II ·      | < EP(VL)               | /ED(T)>    | U         | PE&HV  | <- M-I(T-A)/ | M-II(T-B) -> |  |
| Thu        | EP .      | <          | J           | ED                     | > , .      | C         | <  | <>           |              |  |
| Fri        | PE&HV     | M-I        | . M-I       | ENG                    | M-II       | Н         | <ecsl- (lab-b)="" ep(lab-a)-<="" i="" td=""></ecsl-> |              |              |  |
| Sat        | ENG .     | M-I        | PE&HV       | <- M-I(T-B)/EP(T-A) -> |            |           | M-II   | EP .         | M-II         |  |

|       | Subject                              | Faculty                  |
|-------|--------------------------------------|--------------------------|
| ENG   | English - I                          | Mr. Ch.V.S. Sankara Rao  |
| M-I   | Mathematics - I                      | Dr. B.V.S.N. Hari Prasad |
| M-II  | Mathematics - II                     | Mr. G. R. Ganesh         |
| EP    | Engineering Physics                  | Dr. M. Nagarjuna         |
| PE&HV | Professional Ethics and Human Values | Ms. G. Surekha           |
| ED    | Engineering Drawing                  | Mr. V. V. Krishna Reddy  |

|         | Labs                               | Faculty                                     |
|---------|------------------------------------|---|
| ECSL- I | English-Communication Skills Lab-I | Mr. Ch.V.S. Sankara Rao                     |
| EP      | Engineering Physics Laboratory     | Dr. M. Nagarjuna/ Ms. M.Silpa/ Ms. D. Radha |
| EWS     | Engineering Workshop               | Mr. Md. Raza Ali                            |
| ITWS    | IT Workshop                        | Mr. V.V.R. Manoj                            |
| EP(VL)  | Engineering Physics Virtual Lab    | Dr. M. Nagarjuna                            |

Time Table I/C

I Year Coordinator
HEAD OF THE DEPARTMENT

BS&H; Coordinator, I B.Tech
DHANEKULA INSTITUTE
OF ENGINEERING AND TECHNOLOGY

Principal





# Dhanekula Institute of Engineering & Technology (Approved by AICTE, New Delhi; Affiliated to JNTUK, Kakinada) Ganguru, Vijayawada – 521 139

| Branch: EEE Year/Sem: I |   |             | 3. Tech./I Sem Time Table Academic Year: 2015-16 |                                       |                            |            | 6    | w.e.f: 01/07/2015 |                      |                 |  |
|-------------------------|---|-------------|--|---------------------------------------|----------------------------|------------|------|-------------------|----------------------|-----------------|--|
| Period/Day              | 1   | 2           | 10.40-   | 3                                     | 4                          | 5          | 1:10 | 6                 | 7                    | 8               |  |
| T CHOd/Day              | 9:00-9:50   | 9:50-10:40  | 10.50  | 10:50-<br>11:30                       | 11:30-12:20                | 12:20-1:10 | 2:00 | 2:00-<br>2:50     | 2:50-<br>3:40        | 3:40-4:30       |  |
| Mon                     | EP  | M-I         | В  | <ecsl (lab-a)="" ep(lab-b)=""></ecsl> |                            |            |      | PEHV              | ENG                  | MII             |  |
| . Tue                   | МІ ,  | EP ·        | R<br>E   | ENG M-I(T-A)/MII(T-B)                 |                            |            | L    | < EP(L            | (LAB-A)/ECSL (LAB-B) |                 |  |
| Wed                     | <e< td=""><td>D&gt;</td><td>A</td><td>&lt;</td><td colspan="3">&lt;&gt;</td><td>MI</td><td>MII</td><td>. EP</td></e<> | D>          | A  | <                                     | <>                         |            |      | MI                | MII                  | . EP            |  |
| Thu                     | MII   | M-I         | K  | MII                                   | MII <- EP(T-A)/M-I(T-B) -> |            |      | ENG               | EP                   | PEHV            |  |
| Fri                     | <   | EWS LAB/ITW | WS LAB>  |                                       | > EP M-II                  |            |      | PEHV              | MI                   | MI              |  |
| Sat                     | ENG   | ED          |  | ED ED (T)/EP VL                       |                            |            |      | PEHV              | <- M-II(             | Γ-A)/EP(T-B) -> |  |

|       | Subject             | Faculty                  |
|-------|---------------------|--------------------------|
| ENG   | English - I         | Ms.J.Pushpa Latha        |
| M-I   | Mathematics - I     | Dr. B.V.S.N. Hari Prasad |
| M-II  | Mathematics - II    | Ms.V.P.Vineela.K         |
| EP    | Engineering Physics | Ms. M.Silpa              |
| PE&HV | Professional Ethics | Ms. G. Sureka            |
| ED    | Engineering Drawing | Mr. P. Govind Reddy      |

|         | Labs                               | Faculty                                  |   |
|---------|------------------------------------|--|---|
| ECSL- I | English-Communication Skills Lab-Í | Ms.J.Pushpa Latha<br>Mr.M. Venkateswarlu | / |
| EP      | Engineering Physics Laboratory     | Ms. M.Silpa/Ms. D. Radha                 |   |
| EWS     | Engineering Workshop               | Mr.P. Govind Reddy                       |   |
| ITWS    | IT Workshop                        | Mr.P.Jagadeeswara Rao                    |   |
| EP(VL)  | Engineering Physics Virtual Lab    | Ms. M.Silpa                              |   |

Time Table I/C

HEADYOU CONTRIBUTION RIMENT BS&H; Coordinator, I B.Tech OHANEKULA INSTITUTE OF ENGINEERING AND TECHNOLOGY CONTRIBUTE VALOVAWADA, 521 133

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# DHANEKULA INSTITUTE OF ENGINEERING & TECHNOLOGY Department of Electrical & Electronics Engineering



# UG TIME TABLE

Name of the Program: B.Tech in EEE

Class/Sem: III B.Tech Sem-II

Class Room No: F-44

A.Y: 2018-19

W.E.F: 19/11/2018

| DAY | 9:00-9:50 | 9:50-10:40 |    | 3<br>10:50-11:30    | 4<br>11:30-12:20 | 5<br>12:20-1:10 | \      | 6<br>2:00-2:50 | 7<br>2:50-3:40 | 8<br>3:40-4:30   |
|-----|-----------|------------|----|---------------------|------------------|-----------------|--------|----------------|----------------|------------------|
| MON | MPMC      | PECD       |    | PSA                 | ECM              | DS              |        |                | ITC            | ). PCA           |
| TUE | PECD      | PSA        | BR | DS LAB/ ASSOCIATION |                  |                 | L<br>U | ЕСМ            | МРМ            | C/ Library       |
| WED | ECM       | MPMC       | E  | PE LAB/ MPMC LAB    |                  |                 | N      | PSA /          |                | Counseling       |
| THU | PSA       | n DS       | K  | MPMC LAB /PE LAB    |                  |                 | C<br>H | CI             |                | Internal         |
| FRI | DS        | МРМС       | *  | ASSOCIATION /DS LAB |                  |                 |        | PECD           |                | Internet<br>M/DS |
| SAT | PSA       | ECM        |    | MPMC PECD DS        |                  |                 |        | PEI            |                | Sports           |

| Theory/Lab                                      | Faculty Name                            | L | Т            | P | Ι | Τ                |
|---|---|---|--------------|---|---|------------------|
| PECD:Power Electronic Controllers & Drives      | B. Santhosh Kumar                       |   | 1            | P | 0 | Sign             |
| PSA:Power System Analysis                       | Ch.Anil Kumar                           | 4 | 1            | - |   | 100              |
| MPMC:Micro Processors and Micro controllers     | M Mythri                                | 4 | 1            |   |   | Ch of            |
| DS:Data Structures                              | M.Ragini                                | 4 | 1            |   |   | 140              |
| ECM: Energy Audit, Conservation & Management    | V.Naga Swetha                           | 4 | 1            |   |   | 01               |
| PE Lab:Power Electronics Laboratory             | P.Deepthi/G Sri Lakshmi                 |   | -            |   |   | 3+               |
| MPMC Lab:Microprocessors & Microcontrollers Lab | M Mythri                                |   |              | 3 |   | Chillips Control |
| DS Lab:Data Structures Laboratory               | M.Ragini                                | - | <del> </del> |   |   | (FD)             |
| PEHV:Professional Ethics & Human Values         | V Naga Swetha                           | 2 |              | 3 |   | 12               |
| TC  | P.T.Krishna Sai                         |   |              |   |   | 18               |
| Library/ Internet/Sports                        | V Naga Swetha                           |   |              |   | 3 | Sou              |
| Association                                     | M Sirisha/P.Deepthi                     |   |              |   | 3 | 35               |
| CRT   | V P Vincela.K/Ch Sudheer                |   |              |   | 3 | 8 (h             |
| Counseling                                      | M Sirisha, Ch Anil Kumar, V Naga Swetha |   |              |   | 2 | 90               |
| Class Incharge                                  |   |   |              |   | 1 | 50               |

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#### I Year - I SEMESTER

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#### Professional Ethics and Human Values

# UNIT I: Human Values:

Morals, Values and Ethics – Integrity – Work Ethics – Service Learning – Civic Virtue – Respect for others – Living Peacefully – Caring – Sharing – Honesty – Courage – Value time – Co-operation – Commitment – Empathy – Self-confidence – Spirituality- Character.

## UNIT II: Engineering Ethics:

The History of Ethics-Purposes for Engineering Ethics-Engineering Ethics-Consensus and Controversy –Professional and Professionalism –Professional Roles to be played by an Engineer –Self Interest, Customs and Religion-Uses of Ethical Theories-Professional Ethics-Types of Inquiry – Engineering and Ethics-Kohlberg's Theory – Gilligan's Argument –Heinz's Dilemma.

# UNIT III: Engineering as Social Experimentation:

Comparison with Standard Experiments – Knowledge gained – Conscientiousness – Relevant Information – Learning from the Past – Engineers as Managers, Consultants, and Leaders – Accountability – Role of Codes – Codes and Experimental Nature of Engineering.

# UNIT IV: Engineers' Responsibility for Safety and Risk:

Safety and Risk, Concept of Safety – Types of Risks – Voluntary v/s Involuntary Risk- Short term v/s Long term Consequences- Expected Probability- Reversible Effects- Threshold Levels for Risk- Delayed v/s Immediate Risk- Safety and the Engineer – Designing for Safety – Risk-Benefit Analysis-Accidents.

#### UNIT V: Engineers' Responsibilities and Rights:

Collegiality-Techniques for Achieving Collegiality –Two Senses of Loyalty-obligations of Loyalty-misguided Loyalty – professionalism and Loyalty-Professional Rights –Professional Responsibilities – confidential and proprietary information-Conflict of Interest-solving conflict problems – Self-interest, Customs and Religion- Ethical egoism-Collective bargaining-Confidentiality-Acceptance of Bribes/Gifts-when is a Gift and a Bribe-examples of Gifts v/s Bribes-problem solving-interests in other companies-Occupational Crimes-industrial espionage-price fixing-endangering lives-



Whistle Blowing-types of whistle blowing-when should it be attempted-preventing whistle blowing.

# UNIT VI: Global Issues:

Globalization- Cross-culture Issues-Environmental Ethics-Computer Ethics-computers as the instrument of Unethical behaviour-computers as the object of Unethical Acts-autonomous computers-computer codes of Ethics-Weapons Development-Ethics and Research-Analysing Ethical Problems in Research-Intellectual Property Rights.

#### Text Books:

- "Engineering Ethics & Human Values" by M.Govindarajan, S.Natarajan and V.S.SenthilKumar-PHI Learning Pvt. Ltd-2009.
- 2. "Professional Ethics and Morals" by Prof.A.R.Aryasri, Dharanikota Suyodhana-Maruthi Publications.
- "Professional Ethics and Human Values" by A.Alavudeen, R.Kalil Rahman and M. Jayakumaran- Laxmi Publications
- 4. "Professional Ethics and Human Values" by Prof. D.R. Kiran.
- 5. "Indian Culture, Values and Professional Ethics" by PSR Murthy-BS Publication.
- 6. "Ethics in Engineering" by Mike W. Martin and Roland Schinzinger Tata McGraw-Hill 2003.
- 7. "Engineering Ethics" by Harris, Pritchard and Rabins, CENGAGE Learning, India Edition, 2009.



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|---|--------------|---|---|--|
| 0 | 3            | 0 | 0 |  |

### PROFESSIONAL ETHICSAND HUMAN VALUES

## Course Objectives:

\*To give basic insights and inputs to the student to inculcate Human values to grow as a responsible human beings with proper personality.

\*Professional Ethics instills the student to maintain ethical conduct and discharge their professional duties.

#### **UNIT I: Human Values:**

Morals, Values and Ethics – Integrity – Trustworthiness - Work Ethics – Service Learning – Civic Virtue – Respect for others – Living Peacefully – Caring – Sharing – Honesty – Courage – Value Time – Co-operation – Commitment – Empathy – Self-confidence – Spirituality- Character.

## **UNIT: II: Principles for Harmony:**

Truthfulness – Customs and Traditions -Value Education – Human Dignity – Human Rights – Fundamental Duties - Aspirations and Harmony (I, We & Nature) – Gender Bias - Emotional Intelligence – Salovey – Mayer Model – Emotional Competencies – Conscientiousness.

# **UNIT III: Engineering Ethics and Social Experimentation:**

History of Ethics - Need of Engineering Ethics - Senses of Engineering Ethics- Profession and Professionalism —Self Interest - Moral Autonomy - Utilitarianism - Virtue Theory - Uses of Ethical Theories - Deontology- Types of Inquiry -Kohlberg's Theory - Gilligan's Argument -Heinz's Dilemma - Comparison with Standard Experiments — Learning from the Past -Engineers as Managers - Consultants and Leaders - Balanced Outlook on Law - Role of Codes - Codes and Experimental Nature of Engineering.

# UNIT IV: Engineers' Responsibilities towards Safety and Risk:

Concept of Safety - Safety and Risk - Types of Risks - Voluntary v/sInvoluntary Risk - Consequences - Risk Assessment - Accountability - Liability - Reversible Effects - Threshold Levels of Risk - Delayed v/sImmediate Risk - Safety and the Engineer - Designing for Safety - Risk-Benefit Analysis-Accidents.

#### **UNIT V: Engineers' Duties and Rights:**

Concept of Duty - Professional Duties - Collegiality - Techniques for Achieving Collegiality - Senses of Loyalty - Consensus and Controversy - Professional and Individual Rights - Confidential and Proprietary Information - Conflict of Interest-Ethical egoism - Collective Bargaining - Confidentiality - Gifts and Bribes - Problem solving-Occupational Crimes-Industrial Espionage- Price Fixing-Whistle Blowing.



#### **UNIT VI: Global Issues:**

Globalization and MNCs -Cross Culture Issues - Business Ethics - Media Ethics - Environmental Ethics - Endangering Lives - Bio Ethics - Computer Ethics - War Ethics - Research Ethics -Intellectual Property Rights.

• Related Cases Shall be dealt where ever necessary.

#### Outcome:

\*It gives a comprehensive understanding of a variety issues that are encountered by every professional in discharging professional duties.

\*It provides the student the sensitivity and global outlook in the contemporary world to fulfill the professional obligations effectively.

#### References:

- 1. Professional Ethics by R. Subramaniam Oxford Publications, New Delhi.
- 2. Ethics in Engineering by Mike W. Martin and Roland Schinzinger Tata McGraw-Hill 2003.
- 3. Professional Ethics and Morals by Prof.A.R.Aryasri, DharanikotaSuyodhana Maruthi Publications.
- 4. Engineering Ethics by Harris, Pritchard and Rabins, Cengage Learning, New Delhi.
- 5. Human Values & Professional Ethics by S. B. Gogate, Vikas Publishing House Pvt. Ltd., Noida.
- 6. Engineering Ethics & Human Values by M.Govindarajan, S.Natarajan and V.S.SenthilKumar-PHI Learning Pvt. Ltd 2009.
- 7. Professional Ethics and Human Values by A. Alavudeen, R.Kalil Rahman and M. Jayakumaran University Science Press.
- 8. Professional Ethics and Human Values by Prof.D.R.Kiran-Tata McGraw-Hill 2013
- 9. Human Values And Professional Ethics by Jayshree Suresh and B. S. Raghavan, S.Chand Publications

