IIPM SCHOOL OF ENGINEERING & TECHNOLOGY

**LESSON PLAN: 2023-2024**

**Sub: Entrepreneurship & Management& Smart Technology (EMST)**

**Branch : Mechanical & Mining Semester : 5th**

**Duration : 63 hours**

**Faculty name : Jharana Pujahari**

**Objective :** • Know about Entrepreneurship, Types of industries and Startup• Know about various schemes of assistance by entrepreneurial support agencies • Conduct market survey • Prepare project report • know the management Principles and functional areas of management • Inculcate leadership qualities to motivate self and others. • Maintain and be a part of healthy work culture in an organization. • Use modern concepts like TQM • Know the General Safety Rules • Know about IOT and its Application in SMART Environment.

**Learning Outcome:** It enables the student in acquiring knowledge of Entrepreneurial agencies and the concept of management.

It will make the student aware of in-depth knowledge regarding entrepreneurship.

**SYLLABUS:-**

|  |  |
| --- | --- |
| Unit – I | **1.0 Entrepreneurship**1.1 Concept /Meaning of Entrepreneurship 1.2 Need of Entrepreneurship  1.3 Characteristics, Qualities, and Types of Entrepreneurs, Functions 1.4 Barriers to Entrepreneurship 1.5 Entrepreneurs vrs. Manager 1.6 Forms of Business Ownership: Sole proprietorship, partnership forms, and others 1.7 Types of Industries, Concept of Start-ups 1,8 Entrepreneurial support agencies at National, State, and District Levels (Sources): DIC, NSIC, OSIC, SIDBI, NABARD, Commercial Banks, KVIC, etc. 1.9 Technology Business Incubators (TBI) and Science and Technology Entrepreneur Parks |
| Unit – II | **2.0 Market Survey and Opportunity Identification (Business Planning)** 2.1 Business Planning 2.2 SSI, Ancillary Units, Tiny Units, Service Sector Units 2.3 Time schedule Plan, Agencies to be contacted for Project Implementation  2.4 Assessment of Demand and Supply and Potential Areas of Growth 2.5 Identifying Business Opportunity 2.6 Final Product Selection |
| Unit – III | **3.0 Project Report Preparation** 3.1 Preliminary project report 3.2 Detailed project report, Techno-economic Feasibility 3.3 Project Viability |
| Unit – IV | **4. Management Principles** 4.1 Definitions of management 4.2 Principles of Management 4.3 Functions of management (planning, organizing, staffing, directing and controlling, etc.) 4.4 Level of Management in an Organisation |
| Unit – V | **5. Functional Areas of Management** 5.1 a) Production management • Functions, Activities • Productivity • Quality control • Production Planning and control 5.2 b) Inventory Management • Need for Inventory management • Models/Techniques of Inventory Management 5.3 c) Financial Management • Functions of Financial management • Management of Working capital • Costing (only concept) • Break even Analysis • Brief idea about Accounting Terminologies: Book Keeping, Journal entry, Petty Cash book, P&L Accounts, Balance Sheets(only Concepts) 5.4 d) Marketing Management • Concept of Marketing and Marketing Management • Marketing Techniques (only concepts) • Concept of 4P s (Price, Place, Product, Promotion) 5.5 e) Human Resource Management • Functions of Personnel Management • Manpower Planning, Recruitment, Sources of manpower, Selection process, Method of Testing, Methods of Training & Development, Payment of Wage |
| Unit – VI | **6.0 Leadership and Motivation** 6.1 a) Leadership • Definition and Need/Importance • Qualities and functions of a leader • Manager Vs Leader • Style of Leadership (Autocratic, Democratic, Participative) 6.2 b) Motivation • Definition and characteristics • Importance of motivation • Factors affecting motivation • Theories of motivation (Maslow) • Methods of Improving Motivation • Importance of Communication in Business • Types and Barriers of Communication |
| Unit – VII | **7.0 Work Culture, TQM & Safety** 7.1 Human Relationship and Performance in Organization 7.2 Relations with Peers, Superiors, and Subordinates7.3 TQM concepts: Quality Policy, Quality Management, Quality system 7.4 Accidents and Safety, Cause, preventive measures, General Safety Rules, Personal Protection Equipment(PPE) |
| Unit – VIII | **8.0 Legislation** 8.1 a) Intellectual Property Rights(IPR), Patents, Trademarks, Copyrights 8.2 b) Features of Factories Act 1948 with Amendment (only salient points)8.3 c) Features of Payment of Wages Act 1936 (only salient points) |
| Unit – IX | **9.0 Smart Technology** 9.1 Concept of IOT, How IOT Works 9.2 Components of IOT, Characteristics of IOT, Categories of IOT 9.3 Applications of IOT- Smart Cities, Smart Transportation, Smart Home, Smart Healthcare, Smart Industry, Smart Agriculture, Smart Energy Management, etc. |

**LEARNING RESOURCES**

|  |  |  |  |
| --- | --- | --- | --- |
| **SL NO** | **AUTHOR** | **TITLE OF THE BOOK** |  |
| 01  | R.K Singhal | Entrepreneurship Development and Management | Katson Books, New Delhi |
| 02 | U Saroj and V Mahendiratta | Entrepreneurship Development and Management | Abhishek Publications, Chandigarh |
| 03 | Vasant Desai  | Entrepreneurship Development and Management | Himalaya Pub. House |
| 04 | O.P Khanna, Dhanpat Rai, and Sons | Industrial Engineering and Management |  |
| 05 | Banga and Sharma | Industrial Engineering and Management | Khanna Publications |
| 06 | Jeeva Jose | Internet of Things | Khanna Publications New Delhi |
| 07 |  | Online Resource on Startups and other concepts |  |
| 08 |  | <https://www.fundable.com/learn/resources/guides/startup> |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sl.No** | **Chapter** | **Proposed Week for Teaching** | **Lecture No.** | **Sub. Topic** | **Important Teaching Points** | **Content Source** |
| 1 | I | 1st | 1 | Entrepreneurship | Concept /Meaning of Entrepreneurship | B.Badhai, Pp- 3-5 |
| 2 | 2 | Entrepreneurship | Need of Entrepreneurship | Dr. R. K. Singhal, Pp- 5-7 |
| 3 | 3 | Entrepreneurship | Characteristics, Qualities, and Types of Entrepreneurs | Dr. R. K. Singhal, Pp- 7-9 |
| 4 | 4 | Entrepreneurship | Functions of entrepreneur | Dr. R. K. Singhal, Pp- 10 |
| 5 | **I** | 2nd | 1 | Entrepreneurship | Barriers in entrepreneurship | Dr. R. K. Singhal, Pp- 11 |
| 6 | 2 | Entrepreneurship | Entrepreneurs vs. Manager | Dr. R. K. Singhal, Pp- 11-12 |
| 7 | 3 | Entrepreneurship | Forms of Business Ownership: Sole proprietorship, partnership forms, and others | B.Badhai, Pp- 34-54 |
| 8 | 4 | Entrepreneurship | Types of Industries, Concept of Start-ups | Online Source |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sl.No** | **Chapter** | **Proposed Week for Teaching** | **Lecture No.** | **Sub. Topic** | **Important Teaching Points** | **Content Source** |
| 9 | **I** | 3rd | 1 | Entrepreneurship | Entrepreneurial support agencies at National, State, and District Level DIC, NSIC, OSIC, SIDBI, NABARD, Commercial Banks, KVIC | Dr. R. K. Singhal, Pp- 18-32 & online source |
| 10 | 2 | Entrepreneurship | Technology Business Incubators (TBI) and Science and Technology Entrepreneur Parks | Dr. R. K. Singhal, Pp- 32-34 & online source |
| 11 | **II** | 3 | Market Survey and Opportunity Identification (Business Planning) | Market Survey and Opportunity Identification (Business Planning) | Dr. R. K. Singhal, Pp- 36-38 |
| 12 | 4 | Market Survey and Opportunity Identification (Business Planning) |  SSI  | Dr. R. K. Singhal, Pp- 40-43 |
| 13 | **II** | 4th | 1 | Market Survey and Opportunity Identification (Business Planning) | Ancillary Units, Tiny Units, Service sector Units | Dr. R. K. Singhal, Pp- 13-15 |
| 14 | 2 | Market Survey and Opportunity Identification (Business Planning) | Time schedule Plan  | Dr. R. K. Singhal, Pp- 44 |
| 15 | 3 | Market Survey and Opportunity Identification (Business Planning) | Assessment of Demand and Supply and Potential Areas of Growth | Dr. R. K. Singhal, Pp- 52-54 |
| 16 | 4 | Market Survey and Opportunity Identification (Business Planning) | Identifying Business Opportunity | Dr. R. K. Singhal, Pp- 54-56 |
| 17 | **II** | **5th** | 1 | Market Survey and Opportunity Identification (Business Planning) | Final Product selection | Dr. R. K. Singhal, Pp-57-58 |
| 18 | 2 | Market Survey and Opportunity Identification (Business Planning) | Agencies to be contacted for Project Implementation | Dr. R. K. Singhal, Pp- 45-46 |
| 19 | **III** | 3 | Project Report Preparation- | Preliminary project report | Dr. R. K. Singhal, Pp- 62-67 |
| 20 | 4 | Project Report Preparation- | Detailed project report | Dr. R. K. Singhal, Pp- 70-73 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sl.No** | **Chapter** | **Proposed Week for Teaching** | **Lecture No.** | **Sub. Topic** | **Important Teaching Points** | **Content Source** |
| 21 | **III** | **6th**  | 1 | Project Report Preparation- | Techno-economic Feasibility | Dr. R. K. Singhal, Pp- 67-70 |
| 22 | 2 | Project Report Preparation- | Project Viability | Dr. R. K. Singhal, Pp- 73-76 |
| 23 | **IV** | 3 | Management Principles  | Definitions of management | Dr. R. K. Singhal, Pp- 95 |
| 24 | 4 | Management Principles  | Principles of management | Dr. R. K. Singhal, Pp- 95-96 |
| 25 | **IV** | **7th**  | 1 | Management Principles  | Functions of management | Dr. R. K. Singhal, Pp- 96-98 |
| 26 | 2 | Management Principles  | Functions of management -directing and controlling | Dr. R. K. Singhal, Pp- 96-98 |
| 27 | **V** | 3 | Functional Areas of Management | Production management Functions, Activities  | Dr. R. K. Singhal, Pp- 98-99 |
| 28 | 4 | Functional Areas of Management | Production management Productivity, Quality control, Production Planning, and Control | Dr. R. K. Singhal, Pp- 99-101 |
| 29 | **8th**  | 1 | Functional Areas of Management | **Inventory Management** - Need for Inventory management, Models/Techniques of Inventory management  | Dr. R. K. Singhal, Pp- 101-104 |
| 30 | 2 | Functional Areas of Management | **Financial Management** Functions of Financial Management, Management of Working capital, Costing (only concept) | Dr. R. K. Singhal, Pp- 104-106 |
| 31 | 3 | Functional Areas of Management | Break-even Analysis | Dr. R. K. Singhal, Pp- 108-109 |
| 32 | 4 | Functional Areas of Management | A brief idea about Accounting Terminologies: Book Keeping, Journal entry, Petty Cash book, P&L Accounts, Balance Sheets(only Concepts) d) | B.Badhai, Pp- 95-114 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sl.No** | **Chapter** | **Proposed Week for Teaching** | **Lecture No.** | **Sub. Topic** | **Important Teaching Points** | **Content Source** |
| 33 | **V** | **9th**  | 1 | Functional Areas of Management | **Marketing Management** -Concept of Marketing and Marketing Management | B.Badhai, Pp- 176-197 |
| 34 | 2 | Functional Areas of Management | Marketing Techniques (only concepts) Concept of 4P s (Price, Place, Product, Promotion) | B.Badhai, Pp- 176-197 & online source |
| 35 | 3 | Functional Areas of Management | Human Resource Management • Functions of Personnel Management | Dr. R. K. Singhal, Pp- 116 |
| 36 | 4 | Functional Areas of Management | Manpower Planning, Recruitment, Sources of manpower, Selection process, Method of Testing, Methods of Training & Development, Payment of Wages | Dr. R. K. Singhal, Pp- 116-120 |
| 37 | **VI** | **10th**  | 1 | Leadership and Motivation | **Leadership** Definition and Need/ImportanceQualities and functions of a leader | Dr. R. K. Singhal, Pp- 188, 201-205 |
| 38 | 2 | Leadership and Motivation | Manager Vs LeaderStyle of Leadership (Autocratic, Democratic, Participative |  |
| 39 | 3 | Leadership and Motivation | **Motivation** Definition and characteristics,Importance of motivation | Dr. R. K. Singhal, Pp- 108-109 |
| 40 | 4 | Leadership and Motivation | Factors affecting motivationTheories of motivation (Maslow) | Dr. R. K. Singhal, Pp- 109-197 |
| 41 | **VI** | **11th**  | 1 | Leadership and Motivation | Methods of Improving MotivationImportance of Communication in Business | Dr. R. K. Singhal, Pp- 120-121, 198-199 |
| 42 | 2 | Leadership and Motivation | Types and Barriers to Communication | Online sources |
| 43 | 3 | Work Culture, TQM & Safety | Human Relationship and Performance in Organization | Dr. R. K. Singhal, Pp- 175-178 |
| 44 | 4 | Work Culture, TQM & Safety | Relations with Peers, Superiors, and Subordinates | Dr. R. K. Singhal, Pp- 108-109 |
| 45 | **12th** | 1 | Work Culture, TQM & Safety | TQM concepts: Quality Policy, Quality Management, Quality system | Dr. R. K. Singhal, Pp- 211-213 |
| 46 | 2 | Work Culture, TQM & Safety | Accidents and Safety Causes, preventive measures, General Safety | Dr. R. K. Singhal, Pp- 215-218 |
| 47 | 3 | Work Culture, TQM & Safety | Rules Personal Protection Equipment (PPE) | Dr. R. K. Singhal, Pp- 225-228 |
| 48 | **VII** | 4 | Legislation | Intellectual Property Rights (IPR) | Dr. R. K. Singhal, Pp- 252-254 |
| 49 | **13th** | 1 | Legislation | Patents, Trademarks, Copyrights | Dr. R. K. Singhal, Pp- 252-254 |
| 46 | 2 | Legislation | Features of Factories Act 1948 with Amendment (only salient points) | Dr. R. K. Singhal, Pp- 226-229 |
| 50 | 3 | Legislation | Features of Factories Act 1948 with Amendment (only salient points) | Dr. R. K. Singhal, Pp- 226-229 |
| 51 | 4 | Legislation | Features of Payment of Wages Act 1936 (only salient points) | Dr. R. K. Singhal, Pp- 229-233 |
| 52 | **14th**  | 1 | Legislation | Features of Payment of Wages Act 1936 (only salient points) | Dr. R. K. Singhal, Pp- 229-233 |
| 53 | **VII** | 2 | Smart Technology | Concept of IOT | Online Sources |
| 54 | 3 | Smart Technology | How IoT works | Online Sources |
| 55 | 4 | Smart Technology | Components of IoT, Characteristics of IOT, | Online Sources |
| 56 | **15th**  | 1 | Smart Technology | Categories of IOT | Online Sources |
| 57 | 2 | Smart Technology | Applications of IOT- Smart Cities, Smart Transportation, | Online Sources |
| 58 | 3 | Smart Technology | Smart Home, Smart Healthcare, | Online Sources |
| 59 | 4 | Smart Technology | Smart Industry, Smart Agriculture, Smart Energy Management | Online Sources |
| 60 |  | **16th**  | 1 | Revision | Revision | - |
| 61 | 2 | Doubt clearing session-1 | Doubt clearing session-1 | - |
| 62 | 3 | Doubt clearing session-2 | Doubt clearing session-2 | - |
| 63 | 4 | Doubt clearing session-3 | Doubt clearing session-3 | - |

Signature of

Faculty Member HOD Principal/ Director