



# IPM SCHOOL OF ENGINEERING & TECHNOLOGY

## LESSON PLAN: 2022-23

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

Branch : Mechanical & Mining Semester : 5<sup>th</sup>  
 Duration : 63 hours  
 Faculty name : Jharana Pujahari

#### SYLLABUS:-

Unit – I	<p><b>1.0 Entrepreneurship</b></p> <p>1.1 Concept /Meaning of Entrepreneurship</p> <p>1.2 Need of Entrepreneurship</p> <p>1.3 Characteristics, Qualities and Types of entrepreneurs, Functions</p> <p>1.4 Barriers in entrepreneurship</p> <p>1.5 Entrepreneurs vrs. Manager</p> <p>1.6 Forms of Business Ownership: Sole proprietorship, partnership forms and others</p> <p>1.7 Types of Industries, Concept of Start-ups</p> <p>1,8 Entrepreneurial support agencies at National, State, District Level (Sources): DIC, NSIC, OSIC, SIDBI, NABARD, Commercial Banks, KVIC etc.</p> <p>1.9 Technology Business Incubators (TBI) and Science and Technology Entrepreneur Parks</p>
Unit – II	<p><b>2.0 Market Survey and Opportunity Identification (Business Planning)</b></p> <p>2.1 Business Planning</p> <p>2.2 SSI, Ancillary Units, Tiny Units, Service sector Units</p> <p>2.3 Time schedule Plan, Agencies to be contacted for Project Implementation</p> <p>2.4 Assessment of Demand and supply and Potential areas of Growth</p> <p>2.5 Identifying Business Opportunity</p> <p>2.6 Final Product selection</p>
Unit – III	<p><b>3.0 Project report Preparation</b></p> <p>3.1 Preliminary project report</p> <p>3.2 Detailed project report, Techno economic Feasibility</p> <p>3.3 Project Viability</p>

Unit – IV	<p><b>4.Management Principles</b>  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</p>
Unit – V	<p><b>5. Functional Areas of Management</b>  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&amp;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 &amp; Development, Payment of Wage</p>
Unit – VI	<p><b>6.0 Leadership and Motivation</b>  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</p>
Unit – VII	<p><b>7.0 Work Culture, TQM &amp; Safety</b>  7.1 Human relationship and Performance in Organization  7.2 Relations with Peers, Superiors and Subordinates  7.3 TQM concepts: Quality Policy, Quality Management, Quality system  7.4 Accidents and Safety, Cause, preventive measures, General Safety Rules , Personal Protection Equipment(PPE)</p>
Unit – VIII	<p><b>8.0 Legislation</b>  8.1 a) Intellectual Property Rights(IPR), Patents, Trademarks, Copyrights  8.2 b) Features of Factories Act 1948 with Amendment (only salient points)</p>

	8.3 c) Features of Payment of Wages Act 1936 (only salient points)
Unit – IX	<b>9.0 Smart Technology</b> 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		<a href="https://www.fundable.com/learn/resources/guides/startup">https://www.fundable.com/learn/resources/guides/startup</a>	

**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 of knowledge of Entrepreneurial agencies and concept of management.  
It will make the student aware of in-depth knowledge regarding entrepreneurship.

Sl.No	Chapter	Proposed Week for Teaching	Lecture No.	Sub. Topic	Important Teaching Points	Content Source

1	I	1 <sup>st</sup>	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	2 <sup>nd</sup>	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, 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	<b>II</b>		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	<b>II</b>	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	<b>II</b>	5 <sup>th</sup>	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	<b>III</b>		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	6 <sup>th</sup>	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
24	4	Management Principles		Principles of management	Dr. R. K. Singhal, Pp-95-96	
25	IV	7 <sup>th</sup>	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	7 <sup>th</sup>	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			8 <sup>th</sup>	1	Functional Areas of Management	<b>Inventory Management</b> - Need for Inventory management, Models/Techniques of Inventory management
30	2	Functional Areas of Management		<b>Financial Management</b> Functions of	Dr. R. K. Singhal, Pp-104-106	

					Financial management, Management of Working capital, Costing (only concept)	
31			3	Functional Areas of Management	Break even Analysis	Dr. R. K. Singhal, Pp-108-109
32			4	Functional Areas of Management	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	9 <sup>th</sup>	1	Functional Areas of Management	<b>Marketing Management</b> - 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	<b>VI</b>	<b>10<sup>th</sup></b>	1	Leadership and Motivation	<b>Leadership</b> Definition and Need/Importance Qualities and functions of a leader	Dr. R. K. Singhal, Pp-188, 201-205
38			2	Leadership and Motivation	Manager Vs Leader Style of Leadership (Autocratic, Democratic, Participative)	
39			3	Leadership and Motivation	<b>Motivation</b> Definition and characteristics, Importance of motivation	Dr. R. K. Singhal, Pp-108-109
40			4	Leadership and Motivation	Factors affecting motivation Theories of motivation (Maslow)	Dr. R. K. Singhal, Pp-109-197
41	<b>VI</b>	<b>11<sup>th</sup></b>	1	Leadership and Motivation	Methods of Improving Motivation Importance of Communication in Business	Dr. R. K. Singhal, Pp-120-121, 198-199
42			2	Leadership and Motivation	Types and Barriers of 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		<b>12<sup>th</sup></b>	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 Cause, 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			4	Legislation	Intellectual Property Rights (IPR)	Dr. R. K. Singhal, Pp-252-254
49	<b>VII</b>	<b>13<sup>th</sup></b>	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		<b>14<sup>th</sup></b>	1	Legislation	Features of Payment of Wages Act 1936 (only salient points)	Dr. R. K. Singhal, Pp-229-233
53	<b>VII</b>		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		<b>15<sup>th</sup></b>	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			<b>16<sup>th</sup></b>	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