

Business Proposal for Digital Product Design and Analysis

Scope

Globally the product development avenue has been evolved from analogue to digital system. To sustain and excel in this technological revolt, it is imperative for the interested youth to persistently enhance their skill banks in Computer Aided Design and Manufacturing to being competitive in this ever changing technology warfare. Pakistan being a developing economy is experiencing a technology shift, creating huge opportunities for people with technical acumen and knowhow.

Business Route

This training module offered by TUSDEC is for those loan beneficiaries who are interested in learning CAD/CAM and techniques and prospects of pursuing a business in this field. TUSDEC through its NIDA centers in five major cities of Pakistan will polish the knowledge and skills of such individuals and make them confident in starting a small business venture on their own such as setting up a small teaching lab. Trainees can also start with a small consultancy on product designing and analysis. Adopting a relevant business venture depends on the prior qualification and skill level of trainees.

Training Duration

2 – 6 Weeks

Setting up the Business

This business can be setup within a period of one month with the following resources:

1. HR Requirements:

The business of a teaching lab can be initiated with a trainer, a trainer helper and two members of support staff; whereas, a small consultancy can also be run by a team of four including two consultants and two members of support staff.

2. Equipment List:

Sr.#	Equipment Name
1	Design Software
2	Computers
3	Printers
4	Scanners
5	Measuring Tools

3. Tentative Cost Structure (Capital and Operational Cost for a year)

Sr. #	Item	Cost (Rs.)
1	Furniture	250,000
2	Equipment	350,000
3	Software	270,000
4	Office Rent	360,000
5	Overhead setup cost	50,000
	Total Capital Expenditure	1,280,000
6	Staff Salary	350,000
7	Consumables	100,000
8	Utilities	120,000
9	Other operational Cost	50,000
	Total Operational Cost	620,000
	Total Cost	1,900,000

Services to be Provided

Once set up, following are the services that shall be provided by the business venture(s):

Training Services	Consultancy
Basic Designing 2D (Civil, Electrical, Electronics, Mechanical)	Product Designing
Basic Designing 3D (Civil, Electrical, Electronics, Mechanical)	Product Development
Solid Modeling (Basic)	
Architectural CAD Training (Drafting)	
Electrical Drawing Courses (Basic)	
Other basic level courses	

Future Prospects

The entrepreneur is expected to earn a net profit of Rs. 300,000 in the first year of investment, Rs. 400,000 in the second year, and with an expected growth of 10% every successive year, he will be able to earn increasing profits which in return will give him good prospects to expand the business.

Detailed Loan Repayment Schedule

Financial Assumptions:

Project Life (years)	8
Interest rate (p.a.)	8.00%
Payments per Year	12
Principal amount for Year1	0

Summary of Loan Repayment and Expected Profit Earned:

	Years							
Repayment	1	2	3	4	5	6	7	8
Principal	0	210,991	228,503	247,468	268,008	290,253	314,344	340,434
Interest	152,000	144,375	126,863	107,897	87,358	65,113	41,022	14,932
Total Repayment	152,000	355,366	355,366	355,366	355,366	355,366	355,366	355,366
Minimum Earning to Cover Loan amount	8.0%	18.7%	18.7%	18.7%	18.7%	18.7%	18.7%	18.7%
Expected Return %	23.7%	37.12%	42.4%	45.0%	50.3%	55.5%	60.8%	66.1%
Expected Return Amount	452,000	705,366	805,366	855,366	955,366	1,055,366	1,155,366	1,255,366
Net Profit	300,000	400,000	450,000	500,000	600,000	700,000	800,000	900,000

Note:

On an initial investment of Rs. 1,900,000, it is expected that the small business of teaching or consultancy on Digital Designing will sprout net profit worth of Rs. 300,000 in year 1. The above calculations are true if financial assumptions hold true and economy does not experience any unforeseen risks.

For entrepreneurs carrying out the same business ventures with less/more investment or with partnership investment (personal investment plus loan) than customized feasibilities will be made for assisting such beneficiaries.

Detailed Interest Payment Schedule:

Time (months)	Balance	Principal Repayment	Interest	Monthly Installment	Principal Payable
1	1,900,000	0	12,667	12,667	1,900,000
2	1,900,000	0	12,667	12,667	1,900,000
3	1,900,000	0	12,667	12,667	1,900,000
4	1,900,000	0	12,667	12,667	1,900,000
5	1,900,000	0	12,667	12,667	1,900,000
6	1,900,000	0	12,667	12,667	1,900,000
7	1,900,000	0	12,667	12,667	1,900,000
8	1,900,000	0	12,667	12,667	1,900,000
9	1,900,000	0	12,667	12,667	1,900,000
10	1,900,000	0	12,667	12,667	1,900,000
11	1,900,000	0	12,667	12,667	1,900,000
12	1,900,000	0	12,667	12,667	1,900,000
13	1,900,000	16,947	12,667	29,614	1,883,053
14	1,883,053	17,060	12,554	29,614	1,865,993
15	1,865,993	17,174	12,440	29,614	1,848,819
16	1,848,819	17,288	12,325	29,614	1,831,531
17	1,831,531	17,404	12,210	29,614	1,814,127
18	1,814,127	17,520	12,094	29,614	1,796,607
19	1,796,607	17,636	11,977	29,614	1,778,971
20	1,778,971	17,754	11,860	29,614	1,761,217
21	1,761,217	17,872	11,741	29,614	1,743,345
22	1,743,345	17,992	11,622	29,614	1,725,353
23	1,725,353	18,111	11,502	29,614	1,707,242
24	1,707,242	18,232	11,382	29,614	1,689,009
25	1,689,009	18,354	11,260	29,614	1,670,656
26	1,670,656	18,476	11,138	29,614	1,652,180
27	1,652,180	18,599	11,015	29,614	1,633,580
28	1,633,580	18,723	10,891	29,614	1,614,857
29	1,614,857	18,848	10,766	29,614	1,596,009
30	1,596,009	18,974	10,640	29,614	1,577,035
31	1,577,035	19,100	10,514	29,614	1,557,935
32	1,557,935	19,228	10,386	29,614	1,538,707
33	1,538,707	19,356	10,258	29,614	1,519,352
34	1,519,352	19,485	10,129	29,614	1,499,867
35	1,499,867	19,615	9,999	29,614	1,480,252
36	1,480,252	19,745	9,868	29,614	1,460,507
37	1,460,507	19,877	9,737	29,614	1,440,629
38	1,440,629	20,010	9,604	29,614	1,420,620
39	1,420,620	20,143	9,471	29,614	1,400,477

Time (months)	Balance	Principal Repayment	Interest	Monthly Installment	Principal Payable
40	1,400,477	20,277	9,337	29,614	1,380,200
41	1,380,200	20,412	9,201	29,614	1,359,787
42	1,359,787	20,549	9,065	29,614	1,339,239
43	1,339,239	20,686	8,928	29,614	1,318,553
44	1,318,553	20,823	8,790	29,614	1,297,730
45	1,297,730	20,962	8,652	29,614	1,276,767
46	1,276,767	21,102	8,512	29,614	1,255,665
47	1,255,665	21,243	8,371	29,614	1,234,423
48	1,234,423	21,384	8,229	29,614	1,213,038
49	1,213,038	21,527	8,087	29,614	1,191,511
50	1,191,511	21,670	7,943	29,614	1,169,841
51	1,169,841	21,815	7,799	29,614	1,148,026
52	1,148,026	21,960	7,654	29,614	1,126,066
53	1,126,066	22,107	7,507	29,614	1,103,959
54	1,103,959	22,254	7,360	29,614	1,081,705
55	1,081,705	22,402	7,211	29,614	1,059,303
56	1,059,303	22,552	7,062	29,614	1,036,751
57	1,036,751	22,702	6,912	29,614	1,014,049
58	1,014,049	22,853	6,760	29,614	991,195
59	991,195	23,006	6,608	29,614	968,189
60	968,189	23,159	6,455	29,614	945,030
61	945,030	23,314	6,300	29,614	921,716
62	921,716	23,469	6,145	29,614	898,247
63	898,247	23,625	5,988	29,614	874,622
64	874,622	23,783	5,831	29,614	850,839
65	850,839	23,942	5,672	29,614	826,897
66	826,897	24,101	5,513	29,614	802,796
67	802,796	24,262	5,352	29,614	778,534
68	778,534	24,424	5,190	29,614	754,111
69	754,111	24,586	5,027	29,614	729,524
70	729,524	24,750	4,863	29,614	704,774
71	704,774	24,915	4,698	29,614	679,859
72	679,859	25,081	4,532	29,614	654,777
73	654,777	25,249	4,365	29,614	629,529
74	629,529	25,417	4,197	29,614	604,112
75	604,112	25,586	4,027	29,614	578,525
76	578,525	25,757	3,857	29,614	552,768
77	552,768	25,929	3,685	29,614	526,840
78	526,840	26,102	3,512	29,614	500,738
79	500,738	26,276	3,338	29,614	474,463
80	474,463	26,451	3,163	29,614	448,012

Time (months)	Balance	Principal Repayment	Interest	Monthly Installment	Principal Payable
81	448,012	26,627	2,987	29,614	421,385
82	421,385	26,805	2,809	29,614	394,580
83	394,580	26,983	2,631	29,614	367,597
84	367,597	27,163	2,451	29,614	340,434
85	340,434	27,344	2,270	29,614	313,090
86	313,090	27,527	2,087	29,614	285,563
87	285,563	27,710	1,904	29,614	257,853
88	257,853	27,895	1,719	29,614	229,958
89	229,958	28,081	1,533	29,614	201,877
90	201,877	28,268	1,346	29,614	173,610
91	173,610	28,456	1,157	29,614	145,153
92	145,153	28,646	968	29,614	116,507
93	116,507	28,837	777	29,614	87,670
94	87,670	29,029	584	29,614	58,641
95	58,641	29,223	391	29,614	29,418
96	29,418	29,418	196	29,614	0

For detailed business plan, Please contact our help desk