

1. Manpower Planning & Development for IT Industries.

In the manpower survey, it is revealed that there is a geometric rise in the demand of IT Professionals in Orissa as shown in Annexure-I. Keeping the International manpower demand in view the National demand as per the survey report given by NASSCOM & MIT, the estimated figure goes up to 16 lakhs in the direct employment and 32 lakhs by the year 2008 in the indirect employment as shown in Annexure-II.

The different IT and IT related courses is given in Annexure-III. The projection of manpower requirement in such fields from 2001-2007 is given in Annexure-IV.

The gap analysis between the existing status and requirement projection for the professionals in IT and IT related sectors is shown in Annexure-V. To meet the gap between demand and supply capacity expansion in the Engineering Colleges and Schools have been encouraged both in the Government and Private Sector. The intake capacity of Engineering Colleges and Schools/ Polytechnics is given in Annexure-VI and the capacity expansion is given in Annexure-VII.

2. Revision of courses and syllabus for Technical Universities and Technical Institutions as per the present requirement.

The courses and syllabus of IT and IT related subjects are under regular revision to ensure its suitability for the market requirement. The revision is done by the University for the Degree level courses and by the State Council for Technical Education & Vocational Training, Orissa, Bhubaneswar for the Diploma level courses. Apart from this, the short term courses which are more market oriented offered by the private institutions like SQL, SSI, APTECH, NIIT, Pentasoft, IBM etc keep on changing according to the demands of the market. Such courses will enhance the skill of the students in addition to the core courses they have undergone in the Colleges and Polytechnics. In addition to this, the institutions are constantly guided to make intensive Industry Institute Interaction to develop the skill and innovativeness of the students as well as updation of the curriculum upto the market needs.

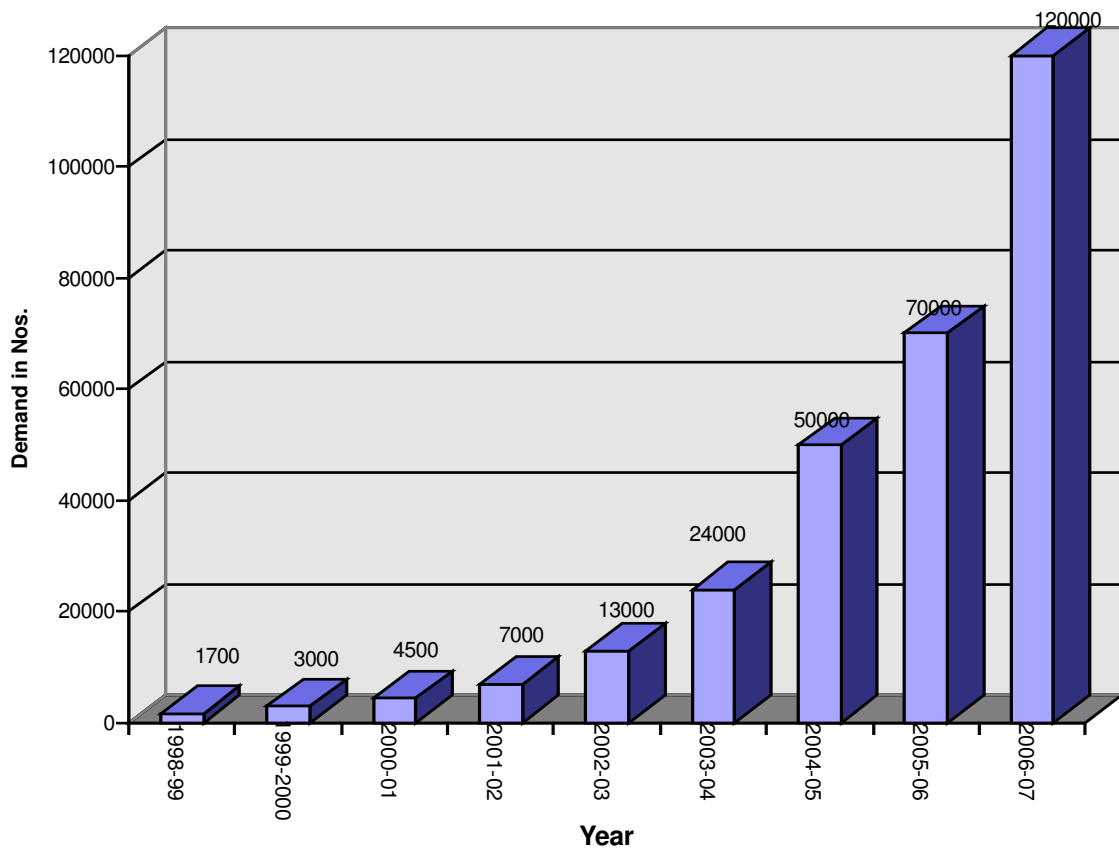
3. Quality of IT Education.

The quality of IT education is a very important aspect, as, at present, market competency plays a very important role for employment. To ensure quality, steps have been taken to induct skilled people in teaching of the subject. Necessary steps have been taken to enhance the quality of the existing faculty of the Engineering Colleges and Polytechnics by way of training, exposing to Seminars and Symposiums etc.

The report is submitted to Government for kind information and necessary action.

ANNEXURE-I

IT Workforce Annual Demand Projections till - 2007 for Orissa



Source: Prospective IT Manpower Planning for the State of Orissa, Prepared by - DTE&T, Orissa and STPI, Bhubaneswar.

ANNEXURE-II

Manpower in lakhs

	NASSCOM	MIT
Software Products & IT Services	11.00	7.77
IT enabled services	11.00	15.90
Teachers for Tertiary education	-	0.20
Teachers for Secondary education	-	1.00
Teachers for Primary education	-	-
Professional for hardware industries	-	16 lakhs direct employment 32 lakhs indirect employment

Source: Prospective IT Manpower Planning for the State of Orissa, Prepared by - DTE&T, Orissa and STPI, Bhubaneswar.

ANNEXURE-III

IT Courses

1. Bachelor of Computer Application (BCA)
2. Bachelor of Information Technology & Management (BITM)
3. B.Sc. (Computer Science Hons)
4. Computer Science & Engineering (CSE)
5. Computer & Management Information System (C&MIS)
6. Information Technology (IT)
7. Master in Business Administration & Information Technology (MBA&IT)
8. Master in Computer Application (MCA)
9. Computer Programming & Application (CPA)
10. Diploma in Computer Application (PDCA)/PGDCA/DCA
11. O/A/B/C Level

IT related Courses

1. Applied ETC & Instrumentation (AE&I)
2. Electronics & Telecommunication (ETC)
3. Bachelor of Business Administration (BBA)
4. Electrical & Electronics (EL&ETC)
5. Electronics & Instrumentation (ETC&I)
6. Communication Engg.(CE-PG course)
7. Master in Business Administration (MBA)

Source: Prospective IT Manpower Planning for the State of Orissa, Prepared by - DTE&T, Orissa and STPI, Bhubaneswar.

ANNEXURE-IV

IT Skills in Demand from 2001 to 2007 for the State of Orissa	Manpower
Programmers/Engineers/Analysts/Computer Scientists	47970
Internet & E-Commerce Application (Web Developers/Design)	22230
Database Administrators/ Developers	12870
Network Specialists/ Developers/ Communication Engineers	16380
Digital Media & Technical writing	5850
IT enabled services	11700
Total Work Force:	117000

Name of the IT & IT related Courses	Requirement
PG	453
MCA, UG	90105
Diploma, Post Diploma, BCA, BBA, etc including certificate courses	26442
Total	117000

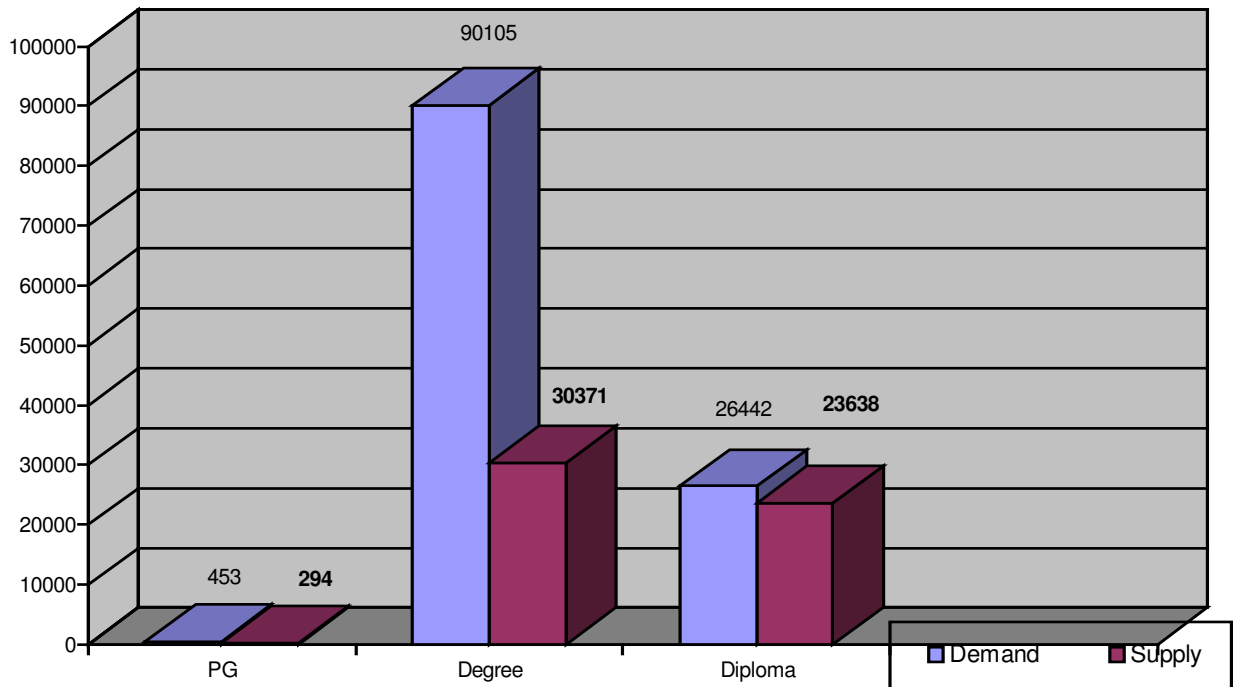
CUMULATIVE MANPOWER DEMAND FROM 2001-2007

PG	6	16	39	82	183	260	453
Degree	1155	3080	7701	16172	36195	51598	90105
Diploma	339	904	2260	4746	10622	15142	26442
Total	1500	4000	10000	21000	47000	67000	117000

Source: Prospective IT Manpower Planning for the State of Orissa, Prepared by - DTE&T, Orissa and STPI, Bhubaneswar.

ANNEXURE-V

Sl. No.	Courses Name	Demand	Supply	Short-fall
1	PG	453	294	159
2	BE/B.Tech./MCA/MBA, etc	90105	30371	59734
3	Diploma, Post Diploma, BCA, BBA, etc	26442	23638	2804
	Total	117000	54303	62697



Source: Prospective IT Manpower Planning for the State of Orissa, Prepared by - DTE&T, Orissa and STPI, Bhubaneswar.

ANNEXURE-VI

INTAKE CAPACITY OF ENGINEERING SCHOOLS/POLYTECHNICS - 2000-2001

Sl. No.	Name of the Institution	Year of Estt	ETC	AE & I	Comp.Sc. & Engg.	Inf.Tech.	Comp.Pro g. & Appln.	PDCA	Total
			1	2	3	4	5	6	7
1	BOSE, CUTTACK	1923	20	35	20			20	95
2	UCPES, BERHAMPUR	1957	40		25			20	85
3	JES, JHARSUGUDA	1955	25					20	45
4	IGIT, SRANG	1981	25						25
5	UGIE, ROURKELA	1962	25						25
6	UGMIT, RAYAGADA	1980	20						20
7	SKDAV, ROURKELA	1967	20					20	40
8	WP, BHUBANESWAR	1979	20					20	40
9	WP, DHENKANAL	1986	40				20		60
10	WP, BERHAMPUR	1995			20				20
11	SMIT, ANKUSHPUR		25			30			55
12	BSE&T, BHADRAK								0
13	RIT, KALUNGAN				60				60
14	KIMET, CHENDIPADA				40				40
15	IEM, JEYPORE								0
16	MSE, BARIPADA								0
17	PKAIET, BARIPADA		60		40				100
18	KALINGA POLY,BBSR		40		30	30			100
19	BDSE, BRAJARAJNAGAR		30			30			60
20	NILACHAL POLY,BBSR				60	40			100
21	SES, SUNDARGARH		60		40	40			140
22	BALASORE SCH.OF ENGG.				60				60
23	SITE, BOLANGIR				60	60			120
	TOTAL		450	35	455	230	20	100	1290

Source: Prospective IT Manpower Planning for the State of Orissa, Prepared by - DTE&T, Orissa and STPI, Bhubaneswar.

ANNEXURE-VII**YEAR-WISE CUMULATIVE GAP ANALYSIS OF DEMAND & SUPPLY FROM 2001-07**

	2001	2002	2003	2004	2005	2006	2007
Demand	1500	4000	10000	21000	47000	67000	117000
PG							
	2001	2002	2003	2004	2005	2006	2007
Demand	6	16	39	82	183	260	453
Existing Supply	42	84	126	168	210	252	294
Gap	-36	-68	-87	-86	-27	8	159
Proposed Supply					196	392	588
Net Gap	-36	-68	-87	-86	-223	-384	-429
Degree							
	2001	2002	2003	2004	2005	2006	2007
Demand	1155	3080	7701	16172	36195	51598	90105
Existing Supply	2815	6030	10599	15542	20485	25428	30371
Gap	-1660	-2950	-2898	630	15710	26170	59734
Proposed Supply	703	1406	2415	4044	9098	17652	26974
Net Gap	-2363	-4356	-5313	-3414	6612	8518	32760
Diploma							
	2001	2002	2003	2004	2005	2006	2007
Demand	339	904	2260	4746	10622	15142	26442
Existing Supply	2404	5458	9094	12730	16366	20002	23638
Gap	-2065	-4554	-6834	-7984	-5744	-4860	2804
Proposed Supply				392	1584	2776	3968
Net Gap	-2065	-4554	-6834	-8376	-7328	-7636	-1164

Source: Prospective IT Manpower Planning for the State of Orissa, Prepared by - DTE&T, Orissa and STPI, Bhubaneswar.

ANNEXURE-VII(Contd..)

Sl. No	Capacity expansion	Intake			Out-turn by 2007		
		PG	Degree	Diploma	PG	Degree	Diploma
1	10 new private Engineering Colleges and 1 Polytechnic recommended by Govt. For 2001.	-	1725	60	-	4164	192
2	IT & IT related courses recommended by Govt. from 2001 in existing Engineering Colleges / Polytechnics.	-	1015	430	-	2484	1376
3	Suggested introduction of PG courses in 6 Engineering Colleges and 1 University from 2003.	245	-	-	588	-	-
4	Suggested introduction of IT & IT related courses in the existing institutions from 2002.	-	2455	1000	-	3928	2400
5	Suggested introduction of MCA in all Engineering Colleges & capacity expansion from 2002.	-	1410	-	-	3384	-
6	Lateral Entry form diploma to degree engineering from 2001.	-	869	-	-	2911	-
7	* Suggested vertical entry form BCA/PGDCA to MCA from 2002.	-	349	-	-	1116	-
8	* Suggested vertical entry form BBA to MBA from 2002.	-	71	-	-	226	-
9	30% migration from other engineering disciplines.	-	2931	-	-	4924	-
10	Establishment of 8 new Engineering Colleges from 2002 in IT cluster area.	-	1920	-	-	3072	-
11	Establishment of 4 new Engineering Colleges from 2003 in IT cluster area.	-	960	-	-	768	-
	Total	245	13705	1490	588	26977	3968

Source: Prospective IT Manpower Planning for the State of Orissa, Prepared by - DTE&T, Orissa and STPI, Bhubaneswar.