



IIT Delhi

BHARTI
ENTERPRISES

**MOU BETWEEN IIT DELHI AND BHARTI ENTERPRISES
FOR ESTABLISHMENT OF
BHARTI SCHOOL OF TELECOMMUNICATION TECHNOLOGY AND MANAGEMENT**

Academic Charter

The Bharti School of Telecommunication Technology and Management shall be established as a Centre of Excellence in telecommunication technologies which, as an integral part of the IIT Delhi, will foster excellence in teaching, training and continuing education programmes, in accordance with the vision document at Annexure I.

The School shall run with the initial participation of the Departments of Electrical Engineering, Computer Science & Engineering and Management Studies, as well as interested faculty members from other disciplines such as O.R. Groups in Mechanical Engineering and Mathematics Departments and the Communication Groups from Physics Department and The Centre for Applied Research in Electronics, IIT Delhi. The activities of the school will be coordinated by the Executive Committee of the School, elaborated further in the Administrative charter.

The School shall run suitable post-graduate programmes and continuing education programmes related to telecom technology and telecom management, with inter-departmental participation.

All academic programs will be designed and administered according to the rules, regulations and norms set by the academic bodies of the Institute.

The admission of students to the School shall be through established procedures of IIT Delhi.

Financial Charter

The principal financial sponsors of the Program shall be Bharti Enterprises. However, other sponsors and donors may also contribute to the School funds.

Bharti Enterprises, along with other sponsors/donors, will assure and underwrite a fund of up to Rs.20 crore in a phased manner subject to needs of School.

The phasing of funds for the capital expenditure could be broadly worked out as follows:

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>
For Capital expenditure	Rs. 4 cr.	Rs. 6 cr.	--

For recurring expenditure, a corpus of Rs.10 crore will be built-up expeditiously over a period of 3 years. Bharti Enterprises will underwrite to cover any shortfall in the interest accrued from the corpus for meeting the requirement of funds for recurring expenditure during years 1, 2 & 3 to the extent of Rs. 30 lacs, Rs. 60 lacs and Rs. 100 lacs respectively.

Administrative

While the School shall have its own building, as well as core faculty and staff support, it will make use of the infrastructure of the Institute, seminar rooms, some of the class rooms, central computing facilities, library and other campus amenities. The School will be guided by School Advisory Board (SAB) and administered by School Executive Committee (SEC). The academic activities will be looked after by School Academic Committee (SAC).

The School Advisory Board will provide guidance to the School Executive Committee (SEC). The broad framework of Annual budget of the School will be approved by the School Advisory Board. The Advisory Board will have a composition as given in Annexure II. The Advisory Board will meet at least once a year.

The administration of the School will be by a School Executive Committee comprising of the participating faculty from the collaborating departments. This Committee will look after the administrative activities of the School and will formulate budgetary allocation to various activities.

The School Academic Committee will evolve and give shape to academic and research programmes of the School.

The Head of the School will have a functional autonomy as well as administrative/financial powers similar to heads of academic departments/ centres. Whereas the Institute will provide facilities to students and faculty of the School which are at par with other students and faculty of the Institute, the School will be free to evolve its own norms for attracting as well as retaining quality faculty within the funds available with the School. The School shall create earmarked residential and other facilities for its faculty, staff and students .

General

The School will enjoy a special relationship with Bharti Enterprises in terms of industrial internship offered, faculty visits and exchanges, research collaboration and other assistance as may be required by the School from time to time. Bharti Enterprises, in addition to contributing to the financial resources, will participate in conceptualisation and implementation of the project.

IIT Delhi will acknowledge and suitably recognise the contribution of other significant sponsors/donors as recommended by Bharti Enterprises.

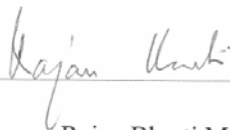
The privileges for significant sponsors/donors could include:

- a) naming of a part of the School after the Company
- b) opportunity for sponsoring one or two candidates for admission to the School's programmes subject to their meeting the academic requirement for admission.
- c) have focused short term programme organised for the Company

This MOU is signed subject to its ratification by the respective authorities of IIT Delhi and Bharti Enterprises.



V.S.Raju
Director
IIT, Delhi



Rajan Bharti Mittal
Joint Managing Director
Bharti Enterprises

29.6.2000

Annexure I

Vision Document for the Bharti School of Telecommunication Technology & Management (BSTTM)

1. Introduction

Telecom Sector is fast emerging- as one of the crucial industries required for the economic development of the country. The Government has already taken several steps to liberalize this sector and is pursuing vigorously to resolve various issues that are coming in the way of development. Considering the low level of penetration of communication facilities in a large country like ours, there is a vast potential for growth in this sector. It is, therefore, important to plan for the various resources (financial, human and technological etc.) required for meeting the country's telecom aspirations.

With reference to human resources, a number of engineering institutions today, are providing graduates in electrical as well as electronics and telecommunication disciplines. These institutions cover the generic fundamentals of electronics and communication. There is definitely a need for advanced and specialized courses in Telecom Technologies and Management which are focussed to provide inputs relevant to technological as well as managerial (marketing, finance, customer care, regulatory etc.) aspects which are essential to effectively design and manage telecom services. At the same time, it is also essential to create storehouses of knowledge and centres of excellence, where not only is the latest knowledge hosted and disseminated, but also actively pursued and generated through innovative research of the highest order

In this context, it is proposed that IIT Delhi (one of the prestigious academic institutions in the field of education in engineering) and Bharti Enterprises (India's leading telecom service provider) would collaborate for creating one such centre at I.I.T. Delhi. A school which may be called Bharti School of Telecom Technology and Management (BSTTM) would be established on the campus of IIT, Delhi and would function within the overall framework of IIT Delhi. It would have its own academic program governed by the Senate and other Academic bodies of IIT Delhi.

2. Objectives

The objectives of the School are based on the following vision:

- (i) It will be a center of excellence for education and research relating to all facets of telecommunication technology & management.
- (ii) It will host state-of-the-art laboratories and infrastructure, and a research environment so as to attract the best faculty and students.
- (iii) It will invite and encourage the best talent in telecommunications to be part of the activities of the School, either by joining it as a faculty member, post-doctoral fellow, researcher, etc., or by being a visiting faculty member.
- (iv) It will run graduate academic programmes (including M.S., M.Tech., MBA & Ph.D.) in collaboration with the various departments and centres at IIT Delhi.
- (v) It will run continuing education programmes for personnel of the telecom industry.

3. Focus Areas

Areas of focus for BSTTM will include ; but not limited to

1. Technological Areas

- a) Network planning and design of systems
- b) Operation and Maintenance of Telecom Services.
- c) Data warehousing and MIS
- d) Network Management Systems
- e) Communication and Information Theory and Systems
- f) Wireless and Mobile Communications
- g) RF and Microwave Technologies
- h) Signal Processing Technologies for Communications
- i) All Optical Communications
- j) Telecommunication Switching Technologies
- k) Transmission and Access Technologies.
- l) IP Networks
- m) ATM Networks
- n) Telecom Software

2. **New Trends in Technologies**
3. **Convergence of Technologies**
4. **Other Contemporary areas like internet, e-commerce etc.**

These will be in addition to the already existing program of

3. M.Tech. in Communications

which may also be suitably revised.

Given the existing strengths of the Faculty, it is proposed that the M.Tech program in TTM be introduced with a few courses in the Management related issues (to be taught with faculty co-opted from the Dept of Management Studies [DMS] and IE & OR group in Mechanical Engineering). The second Master's program in TIM is proposed to be introduced with the core courses taught by the Faculty from DMS and a few telecom courses taught by Faculty from EE.

The in-take into the Masters Program [TTM] will be open to candidates from relevant technical streams (i.e. with B.E / B.Tech degrees). The intake to Masters Programme [TIM] will be from technical/non-technical (i.e, also graduates/postgraduates in Science, Commerce etc. - as per the guidelines of the Senate at IIT Delhi for MBA programmes) streams who plan to pursue interest in the telecom field. The intake will be open to working engineers/professionals from the industry on part-time and sponsorship basis, subject to their being otherwise qualified for admission. Such sponsored candidates will be charged a sponsorship fee, which will be determined from time to time.

The programs would be designed in such a manner that the technical graduates should be able to take specialized / advanced courses as well as get an opportunity to take relevant managerial courses for growing into well-rounded telecom professionals. Similarly, the non- technical graduates would find the Management Courses useful to sharpen their competencies in their interest functions besides gaining adequate technical knowledge from the suitable technical courses.

The admission to the programs will be made by the School Executive Committee through established admission procedures at IIT Delhi for M.Tech/MBA programs.

5. Continuing Education Programs

The BSTTM will run continuing education programs for the benefit of working professionals in telecom industry on a regular basis.

6. Research Programs

The School will conduct and support high quality innovative research in various areas of interest, some of which are listed in section 3. Efforts will be made to attract top students to join the research program through registration for M.S. and Ph.D and also as scientists and post doctoral fellows. Top Professors and Researchers will be inducted or invited as visiting faculty to build up a truly international research atmosphere.

7. Administration

Total administration of the School will be in accordance with the IITD administrative set-up, under the guidance of SAB, the Senate and other Academic Bodies that exist at IIT Delhi. The School shall have its own School Executive Committee (SEC), which will comprise largely of the faculty members from the participating departments and School faculty.

Faculty & infrastructural support: The School will have its own faculty and also use the available faculty expertise and infrastructure in various departments by working jointly. Existing facilities will be strengthened and additional facilities created.

8. General

The School (BSTTM) will have complete autonomy within the academic and administrative framework of IIT Delhi, and it will continue to accept donations and inputs from other funding agencies in the public and private sector who may wish to assist the activities of the school.

The School will have an advisory body called the School Advisory Board, with members drawn from IIT Delhi, Bharti Enterprises and other relevant bodies as appropriate at any given point in time.

Annexure II
Composition of the School Advisory Board

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|----|--|-------------|
| 1. | Director, IIT Delhi | Chairman |
| 2. | Chairman, Bharti Enterprises | Co-Chairman |
| 3. | School Coordinator/Head of the School | Member |
| 4. | Heads of Participating Departments | Members |
| 5. | One faculty from each participating Deptt./Centre | Members |
| 6. | Two nominees of Bharti Enterprises | Members |
| 7. | Two nominees of the Senate | Members |
| 8. | Two nominees of the Board of Governors | Members |
| 9. | Additional members from R&D and Academic Institutions as well as major contributing organisation/industries. | Members |