

# First-class University Alliance: the Enlightenment from Indian Institute Technology's Governance Mechanism for Top Universities in China

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**Abstract:** The key for Indian Institute of Technology (IIT) to become a world-class university in a few decades is the innovation in governance mechanism. Law-based and multi-party governance as well as joint autonomy are the core of the governance mechanism of IIT. Thus, it may be a possible path and development trend for China to speed up the construction of the world-class university group by benchmarking again IIT in establishing world-class university alliances and its council, implementing and expanding autonomy by national legislation.

## 1. Introduction

Indian Institute of Technology, known as the “Treasure on the Crown of Science in India”, has promoted itself to be a world-class university in just 50 years. There are only two paths for the development of high-level universities in the world. “One is by academic accumulation, such as Oxford University, Cambridge University, Harvard University, Paris University, and so on. After hundreds of years of academic development by personnel training and advanced knowledge exploration, they have gradually become high-level universities. The other is by management and innovation, such as universities including Warwick University in Britain, Hong Kong University of Science and Technology that has entered the ranks of the world’s top universities in just a few decades through management innovation and academic development.” [2] Undoubtedly, IIT belongs to the latter. Among its many success factors, the most critical one is the innovation in governance mechanism.

## 2. Governance mechanism of IIT

### 2.1 Rule by law: national legislation to establish the “special zone” of IIT

IIT is a test field for realizing the dream of world-class universities in India. The Indian government has legislated to build a “special zone” for first-class universities, and solved the problems arising from the initiation, growth and rise of IIT by the rule of law.

On August 18, 1951, the first IIT was established in Kharagpur, Eastern India. In 1956, the Indian Parliament introduced the Kharagpur Act, also known as the Karagpur Act, named after the first branch of IIT, which laid a strong basis of the rule of law for the governance of IIT. According to the Act, IIT is a key national institute with a higher status than other institutions of higher education such as Indian comprehensive universities, quasi-universities, research institutes and affiliated institutes of universities. Prime Minister Nehru delivered a speech at Lagerpool, asking the Indian government to support the development of IIT from legislative, administrative and other aspects. [3] The Indian Institute of Technology Act 1961 and the Indian Institute of Technology Act 1963 (Amendment) further endow IIT with independent academic policies, enrollment rights and degree conferring rights in personnel training. The Indian Institute of Technology Act, which has been amended many times, gives IIT greater freedom to innovate its governance mechanism and reduces

excessive human interference from the outside world. It is also very rare in the history of higher education in the world that the state legislates for a university and amends it many times.

## **2.2 Shared governance: multi-stakeholder participation in the governance of IIT**

Since the government transferred part of the management of IIT, IIT implements a three-level governance structure which is different from Chinese universities and other higher educational institutions in India. The Visitor is at the top of the governance structure of IIT. The Indian Institute of Technology Act 1961 stipulates that the current President of India is an “inspector” of IIT. [4] However, the President of India serves as an inspector of all Indian Central Universities, so the inspector is largely an honorary position and does not interfere too much in the internal affairs of the College. The transfer of some administrative powers by the Indian government and the implementation of “governing by doing nothing” can not only ensure that the state controls the direction of running IIT, but also give it a wide range of autonomy.

Specialized agencies mediate the relationship between the various parties of IIT. It has a large number of management institutions and diverse participants. In addition to the IIT Council, which governs the branches of the institution, each branch has a Board of Governors and the Senate. The Indian Institute of Technology Act and its regulations provide that the branch management committee can manage and control schools with full authority. The Council is an extremely important academic management and decision-making body of the branch. In terms of personnel composition, in addition to the chairman appointed by the inspectors, the headmaster is an ex officio member of the management committee, and other members include a technical expert or industrialist appointed by the state government where the school is located; four professionals in education, engineering or science appointed by the council; and two professors recommended by the council. Off-campus participation in management committees and councils not only helps IIT to understand social and public needs, but also helps it strive for social resources to run schools and form a joint development force.

Social forces are deeply involved in the construction of IIT. The social forces are mainly composed of three aspects: firstly, the comprehensive cooperation between Indian enterprises and IIT. India passed the Apprenticeship Act as early as 1961, establishing a government-led apprenticeship system with enterprise participation: both state-owned and private enterprises have legal obligations to provide necessary training places and training facilities for University students. [5] Enterprises not only provide internship places and employment opportunities for students of IIT, but also spare no effort to publicize and promote them at home and abroad. They have become an important force in the germination, development and growth of the institute. Secondly, large alumni associations not only help the development of IIT through various forms, but also win the reputation of it in the world. It also consults and supervises the school-running activities of IIT with its economic, academic and educational influence. Thirdly, social philanthropists have made great contributions to the renewal of the material environment and the supplement of the school-running funds of IIT.

## **2.3 Joint autonomy: the council boosts the alliance of IIT branches**

University strategic alliance refers to a loose network organization consisting of two or more universities spontaneously through a certain way to complement each other's advantages and share risks on the premise of maintaining independence and for a certain purpose or strategic goal. [6] In the early stage, under the planning of the government and in the later stage, the branches of IIT gradually formed a first-class University Alliance in the form of “federation”. Under the control of the Council, the branches of IIT developed in groups and continuously improved their bargaining power and autonomy level.

Gradual organizational diffusion of IIT. The first IIT, in Kharagpur, was founded in 1951. With the support of the Indian Institute of Technology Act and the help of UNESCO, Bombay, Madras, Kanpur and Delhi were successively completed in the following ten years. From the 1990s to the beginning of this century, influenced by the achievements of IIT, Guwahati Branch was newly built

and Roorkee Branch was restructured. In 2012, according to the Indian Institute of Technology Act (Amendment) 2010 and Indian College of Technology Act (Amendment), the Institute of Engineering of Hindu University in Benares was transformed into Varanasi branch of IIT. Besides, additional branches in Roper, Patna, Mandi, Indore, Bhubaneswar, Hyderabad, Jodhpur and Gandhinagar were also built. [7] In 61 years, the Indian government has established 16 IIT branches with independent legal personality in three batches.

Table.1. Basic information of IIT Branches

Serial Number	Name of Branches	Date of Establish-ment	Location	Asian University Ranking
1	Kharagpur branch	1951	East India	60 Huazhong University of Science and Technology 57
2	Bombay branch	1958	West India	44 Wuhan University 45
3	Madras branch	1959	South India	103 China Agricultural University 106
4	Kanpur branch	1961	Central India	81 Xiamen University 80
5	Delhi branch	1963	North India	86 People’s University of China 87
6	Guwahati branch	1994	Northeast India	112 Dalian University of Technology 111
7	Roorkee branch	2001	Northeast India	65 Tianjin University 64

Note: According to the ranking of Asian universities in 2018 by Times Higher Education in British. The other nine branches of the IIT were not included in the ranking due to their short establishment time.

The Federal Development of IIT Branches. The branches of IIT are autonomous engineering and technology institutes with independent legal person status. In the fields of computer science engineering, mechanical engineering, electronic engineering, civil engineering and chemical engineering, their advantages and differences are obvious. Under the leadership of the Council of IIT, 16 campuses have cooperated and competed, forming a federated and loosely integrated university alliance, seeking government and social support, and constantly enhancing bargaining power and social influence. According to the ranking of Asian universities by Times Higher Education in Britain in 2018, seven IIT branches rank between 44th and 112 place, which is equivalent to the standard of running seven “985” universities in China. Nominally being a university of technology, IIT, in fact, has become a cluster of 16 world-class universities.

### 3. Reference and enlightenment: discussion on the construction of first-class university alliance in China

China and India are both developing countries with similar national conditions, but the paths to build first-class universities are quite different. After the founding of the People’s Republic of India, it established the first-class university experimental “special zones” through national legislation, imitated and innovated the governance mechanism of the first-class universities, created the world-class university of IIT in a relatively less investment and a relatively short period of time, and promoted its development to the first-class university cluster. China spent a considerable amount of time and money to popularize compulsory education and promote the popularization of higher education. It was not until the end of the 20th century that the construction plan of world-class universities was launched. The key to building a world-class university in China lies in the governance mechanism of BIT.

First, establish a first-class University Alliance in China. After the five branches of IIT entered the ranks of the world's first-class universities in the early years, they organized and spread in batches, forming a world-class university cluster including 16 branches. The Ivy League of America, Russell Group of Britain, German Polytechnic University Union, Canadian University Union and Australian Eight Universities Union [19] also show that the powerful country of higher education does not only have several top universities, but usually has a world-class university group. In September 2017, the Ministry of Education, the Ministry of Finance and the National Development and Reform Commission published a list of 42 world-class universities. In view of this, China has the necessity and foundation to form a world-class university alliance.

Second, improve the autonomy of first-class university alliances through national legislation. IIT cannot be promoted to a world-class university in a short time without the revised Indian Institute of Technology Act. The Indian Parliament has enacted legislation to ensure the autonomy of IIT from a "policy text" to a reality, with special policies and key support. Although China's Education Law and Higher Education Law have been promulgated and implemented for more than 20 years, in 2016, 2246 institutions of higher learning have concentrated on the formulation of University Charters. It is necessary for the Central Committee of the CPC and the State Council to promulgate laws and regulations to implement and expand the autonomy of the first-class University Alliance in order to enable the first-class university alliance to strive for a more complete autonomous status in accordance with the Charters and get rid of the excessive restrictions of the government on universities and unnecessary system nesting.

The third is to establish a first-class University Alliance council. The Council of IIT manages and coordinates the branches, and strives for the support of the government and society. Stakeholders such as government, teachers, students, managers and the public participate substantially in the governance of IIT, and promote the development of the first-class university cluster of IIT. The administrative power of government organizations such as education authorities in China is too large. All kinds of red-headed documents and administrative rules almost control the main aspects and important links of university power operation, and become the powerful subject of university governance. Universities inevitably become "subsidiary units" of the government. To form China's first-class university alliance, it is necessary to establish a council similar to IIT, to promote the diversification of university governance subjects, to explore a first-class university governance mechanism that is in line with the modern university system and the national conditions, and to speed up the pace of building a world-class university cluster in China.

## References

- [1] [INDIAN] Sandipan Deb, HUNG Yongming, et al. 2010. The Elites of Indian Institute of Technology. Peking University press, Vol.3, No.12.
- [2] LIU Xianjun. 2015. The Value of Common Governance of University and Its Practice. Journal of ShanDong Higher Education, Vol.3, No.6.
- [3] Ministry of Human Resource Development. 2012. Annual Report (2012-13). New Delhi, No. 55-78.
- [4] HU Huijuan. 2016. The research on the governance structure of Indian Institute of Technology. Shanghai Normal University of Master of Education, No. 22.
- [5] Academic Ranking of World Universities. 2016.
- [6] <http://www.shanghairanking.com/ARWU-Statistics-2016.html#2>.
- [7] Declaration of HeFei.2013. <https://go8.edu.au/article/he-fei-xuan-yan-2013>.