

SELECTION AND ADMINISTRATION SYSTEM OF TECHNICAL INVESTIGATORS IN CHINESE INTELLECTUAL PROPERTY LITIGATION: A COMPARATIVE ANALYSIS

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ABSTRACT

The technical investigator system has been applied in China as an important step to ascertain technical facts in the intellectual property trials. This paper, by making comparison of the relevant provisions and the judicial practices of Guangzhou and Beijing IP Courts, digs out the current selection and administration issues of technical investigators in China: inconsistency of selection criteria, insufficiency of the number of technical investigators on duty, imperfection of the administration system and the ranks and performance evaluation, as well as the difficulty to insure the competency, neutrality and transparency of the technical investigators. And then it analyzes the practices in Japan, Korea, Taiwan and German and takes them as references to put forward seven suggestions to improve the technical investigator system in China, namely: establishing the unified selection criteria; disclosing the conditions and procedures for appointment; specifying their types and tenure; unifying and refining the recusal system; providing career planning and refresher training; strengthening the daily work management and regular assessment and establishing the reserve technical investigator pools.

Keywords: technical investigator; selection and administration system; intellectual property trial; technical facts

INTRODUCTION

The development of digital and information technology has created a dramatic change with respect to both the quantity and quality of IPRs disputes.¹ Among those IPR-related lawsuits, a significant proportion are related to the technical and scientific data, where the technical facts are far more professional, complex, diverse and controversial.² Hence an intelligent evaluation of those facts is often difficult or impossible without the application of some scientific, technical, or other specialized knowledge.³

In order to facilitate the improvement and advancement of the resolution of IPRs disputes and in general ensure all IP cases are handled with the highest expertise to reach a fair resolution, on 31 December, 2014, the Supreme People's Court (SPC) released the *Provisional Regulations on Several Issues Concerning the Participation of Technical Investigators in the Proceedings of Intellectual Property Courts* (hereinafter "*TI Provisional Regulations*") to recognize and give effect to the operation of technical investigator (TI) system in mainland China.⁴ This is a supplementary but essential measure taken by the SPC after the decision of establishing Special Intellectual Property Courts (SIPCs) in Beijing, Shanghai and Guangzhou. However, since it is a new system in mainland China, further observation and study will be needed on its impact on the modern IP litigation. In this paper, we focus on the selection and administration issues of the TI in the intellectual property trials, taking the judicial practice of Guangzhou and Beijing IP Courts as examples to dig out the existing problems in China, and then making comparison with that in some foreign countries or regions in order to perfect the selection and administration system of the TIs in China.

¹ Giuseppe Zuconi Galli Fonseca, *Intermediaries Liability for Online Copyright Infringements: The Duty to Cooperate Under E.U. Law* (WIPO Academy, University of Turin and ITC-ILO, 2014); available at <<http://ssrn.com/abstract=2714269>>.

² Liang Ping [梁平], 'Technical Fact-finding Mechanism in Chinese Intellectual Property Litigation[中国知识产权诉讼技术事实查明机制研究]' (2015) Issue 8 Intellectual Property[知识产权] 36, 36.

³ See 'Rule 702. Testimony by Expert Witnesses'; available at <https://www.law.cornell.edu/rules/fre/rule_702>

⁴ Wu Rong [吴蓉], 'Primary Exploration of Technical Investigator System in IPR Court: Review of the Provisional Regulations on Several Issues Concerning the Participation of Technical Investigators in the Proceedings of IP Courts[知识产权法院技术调查官制度初探——评<最高人民法院关于知识产权法院技术调查官参与诉讼活动若干问题的暂行规定>]' (2015) Issue 2 China Copyright[中国版权] 10, 10.

GENERAL PROVISIONS ON THE SELECTION AND ADMINISTRATION OF TECHNICAL INVESTIGATORS IN CHINA

Since the first appearance in the Guangzhou IP Court to assist judges in resolving specific technical issues on 22 April, 2015,⁵ the TIs are hired by PRC courts more frequently to help them come to decisions without the need for further analysis by outside experts. They can assist in adjudicating cases involving matters such as patents, new plant varieties, layout design of integrated circuits, trade secrets and software infringements.⁶ The use of TIs is expected to improve the efficiency and quality of court work and reduce the cost of litigation for the parties.

The legal status of the TIs directly determines their responsibilities in the litigation and the legal effect of the technical examination opinions. Article 1(1) of the *TI Provisional Regulations* stipulates that “Technical investigators shall be deployed at the Intellectual Property Court as judicial auxiliary staff”. This clause contains two implied meanings. Firstly, TIs participate in the trials as technical assistants. Unlike the role in some European jurisdictions, they do not adjudicate the case and have no right to vote for the judgement. Secondly, TIs have the neutral identity. Whether they are employed by the court or social service, they are in-house staffs, or the administrative staffs of the court, who are independent from the parties and have the neutral identity.⁷ In addition, although TIs are the technical assistants of the judge, they are independent of each other in the legal status, and there is no

⁵ In 22 April, 2015, the technical investigators participated in the Guangzhou IP Court to assist in the trial *Guangzhou Music Network Digital Technology Co. Ltd*[广州市乐网数码科技公司] v. *China Union Guangdong Branch*[中国联通广东省分公司]. This is the first appearance of the technical investigators in Chinese IP court. See Suo Youwei[索有为], Fanzhen[范贞]& Han Yaqi[韩亚圻], ‘The First Appearance of the Technical Investigators in Guangzhou IP Court’(Website of the Chinanews [中新网], 22 April, 2015) <<http://www.chinanews.com/fz/2015/04-22/7226935.shtml>> accessed 16 October 2016.

⁶ Article 2 of the *Provisional Regulations on Several Issues Concerning the Participation of Technical Investigators in the Proceedings of Intellectual Property Courts*[关于知识产权法院技术调查官参与诉讼活动若干问题的暂行规定](hereinafter “*TI Provisional Regulations*”), “In hearing highly technical civil and administrative cases related to patents, new plant varieties, integrated circuit layout designs, technical secrets, and computer programs, the Intellectual Property Court may appoint technical investigators as participants in the proceedings thereof”.

⁷ “Highly capable and truly unbiased technical advisors, operating in a transparent manner, may resolve some of the issues that arise when parties present their own (often conflicting) technical experts or non-technical judges must rely on highly technical appraisal reports and other information to decide cases.” See Georgia Chiu, ‘China: Shanghai IP Court Head Judge Wu Provides Overview of the New Court, the Establishment of a Technical Department and Technical Investigators’ (*LimeGreen IP*, 10 February 2015) <<https://www.lexology.com/library/detail.aspx?g=e2e553d6-3861-477d-a569-52c05f687ab8>> accessed 3 December 2016.

relationship between superior and subordinate.⁸ However, the competency, neutrality and transparency of the TIs are still unknown and untested.

The personnel management of the TIs is indicated in the Article 1(2) of the *TI Provisional Regulations*,⁹ where TIs are managed, deployed and assessed by the technical investigation division rather than the trial court. Actually, the daily work of TIs is mainly divided into two parts: one is responding to inquiries of the trial court about technical issues; another is attending case deliberations to help the judge verify the case-related technical facts. In a specific trial, the judge should determine the participation of the TIs and their technical background and experience in litigation activities pursuant to the needs of litigation. When a TI is participating in a lawsuit, the judge may also withdraw or replace him if necessary.

In addition, although the TIs are essentially judicial auxiliary staffs, in the course of hearing of the case, they may participate in inquiries, hearings and trials upon the judge's request, and provide technical examination opinions, who may have a great influence on the litigation since the judges may depend on their opinion in terms of confirmation of technical facts. Hence, in order to fully protect the legitimate rights and interests of the parties, the status and role of TIs should be reflected in the adjudication document, so as to strengthen their responsibilities.¹⁰ Both the *TI Provisional Regulation* and the *Civil Procedure Law* have some regulations on this regard.¹¹

Since the important and special position of TIs, a corresponding recusal system has been set up to supervise them from the perspective of the parties concerned. Under the *TI Provisional Regulation*, the TI may withdraw from the case, and a party also has the right to request for

⁸ Li Shulan, Chen Huizhen & Ling Zongliang, 'Position Identification and System Coordination of Technical Investigator in the Intellectual Property Trial: The Construction of the '4-in-1' Technical Fact-Finding Mechanism (2015) *Symposium of Annual Meeting 2015 of Chinese Intellectual Property Law Association*.

⁹ See Article 1(2) of the *TI Provisional Regulations*, "A division of technical investigation shall be set up under the Intellectual Property Court, and held responsible for the routine management of technical investigators".

¹⁰ Wu Rong (n 5).

¹¹ See Article 3(2) of the *TI Provisional Regulation*, "The technical investigator participating in the litigation shall be identified in the case source part of the header of the adjudication document by listing his or her capacity and name". See also Article 4 of the *TI Provisional Regulation*, "The litigants shall be notified within three days after the Intellectual Property Court decides to send a technical investigator to participate in litigation activities". See also Article 128 of the *Civil Procedure Law* [民事诉讼法], "The litigants shall be notified within three days after the members of the collegial panel are determined".

their withdrawal from the case, should the TI have a conflict of interest.¹² Referring to the relevant provisions of the procedure law, the recusal of the TI should be determined by the court president.

1. Exploration the practice of the Guangzhou IP Court: comparing with that of Beijing IP Court

In accordance with the judicial interpretation, the Guangzhou IP Court, established on 16 December, 2014, has “cross-regional jurisdiction over the first instance IP civil and administrative cases involving patents, new plant varieties, layout design of integrated circuit, technological secrets and other relatively specialized technological facts.”¹³ And it initially has “cross-regional jurisdiction over the entire Guangdong province in the first three years”.¹⁴ Since there is no explicit provisions on the selection and administration of TIs under the *TI Provisional Regulation*, pursuant to the spirit of relevant documents and the actual needs of the IP trials, the Guangzhou IP Court enacted the *Interim Measures for the Selection and Administration of Technical Investigators* (hereinafter “*Selection and Administration IM*”), *Interim Measures Concerning the Participation of Technical Investigators in Litigation Activities* (hereinafter “*Participation IM*”) and the *Working Rules on Technical Investigation* to further explore and define the criteria, selection channels, tenure and avoidance issues of TIs.

Selection criteria

Article 3 of the *Selection and Administration IM* sets forth the selection criteria of a TI: “1. With the nationality of PRC; 2. Has graduated with a bachelor’s degree or above in a relevant technical field; 3. With more than 2 years of professional experience; 4. Has good political and professional qualities and character; 5. With physical fitness”.¹⁵

¹² See Article 5 of *TI Provisional Regulation*, “The litigants are entitled to apply for the recusal of the sent technical investigators. The technical investigators shall be challenged in accordance with the regulations for the recusal of judicial personnel stipulated in the Civil Procedure Law and the Administrative Procedure Law”.

¹³ Lin Guanghai[林广海], ‘Story of Guangzhou: Polygon Prism of Intellectual Property Court[广州故事：知识产权法院多棱镜]’ (2015) 10 Journal of Law Application[法律适用] 18, 18.

¹⁴ Ibid.

¹⁵ See Article 3 of the *Interim Measures for the Selection and Administration of Technical Investigators*[技术调查官选任和管理暂行办法] (hereinafter “*Selection and Administration IM*”).

Among the above criteria, the third one is mainly considering from the judicial practice that most technical cases are involved with advanced technology, strong complexity and vital interests, which can only be handled by the TIs who have accumulated certain experience after a long time practice and reached the intermediate level of the technical personnel in this field. But it is worth noting that the proposed requirement is “more than 5 years” when referring to the related work experience in Beijing IP Court,¹⁶ while it is “more than 2 years” as proposed by the Guangzhou IP Court. So whether the “more than 2 years” requirement can satisfy the need is still unknown.

Selection channels

In accordance with the *Selection and Administration IM*, the Guangzhou IP Court provides three avenues for the selection of TIs:¹⁷ Firstly, the authorized TIs, who are the court’s official administrative staffs and be elected and appointed by the court independently. Secondly, the employed TIs, who are employed through open recruitment and the court has to sign the employment contracts and be responsible for their organizational affiliation, remuneration and other issues. Thirdly, the transferred or exchanged TIs, who are dispatched by government agencies, industry associations, universities, scientific research institutions, enterprises and public institutions, and whose organizational affiliation remains the same and their salary should be paid by their original organization.¹⁸ Besides, the *Selection and Administration IM* also specifies the professional preferences of TIs, where it “shall be determined in accordance with the number and types of the technical cases trialed by the court as well as the technical fields involved”,¹⁹ while no provisions specify their term of office.

It should be noted that a fourth type of TIs is created by the Beijing IP Court, that is the part-time TIs, who are selected and employed by the court among related technical personnel after unit recommendation or self-recommendation, and whose organizational affiliation remains the same and their salary should be paid by their original organization, and when necessary,

¹⁶ See *Measures for the Management of Technical Investigators in Beijing Intellectual Property Court* [北京知识产权法院技术调查官管理办法].

¹⁷ Article 4 of the *Selection and Administration IM*, “Technical investigators can be exchanged from the Patent Administration Department under the State Council, or selected from transferring or open recruitment”.

¹⁸ “The exchanged technical investigators who are dispatched from the Patent Administration Department under the State Council shall be the current patent examiners.” See Article 3(2) of the *Selection and Administration IM*.

¹⁹ See Article 4(2) of the *Selection and Administration IM*.

they can participate in the litigation activities according to the notice of the technical investigation division and receive relevant remuneration.²⁰ Moreover, the term of office is specified, where the tenure of the authorized and employed TIs is the working duration in the court; the tenure of the exchanged ones is generally one year, and it can be extended to 2 years after negotiation with the original unit; as for the part-time ones, their tenure is 3 years, which can be renewed after expiration.²¹

Recusal system

With regard to recusal issue, the court has a duty to notify the parties within three days after the determination of TIs to participate in litigation, as well as inform them the right to request for their recusal.²² Article 5 of the *Participation IM* itemizes the situations to be withdrawal: (1) where a TI is a party to the case, or is a close relative to a party or his agent; (2) having interests in the case; (3) having other relationships with the parties or their agents that would prejudice the impartiality of a judicial decision; (4) accepting a treat or gift from the parties or their agents, or having a meeting with the parties or their agents in violation of regulations.²³ Besides, it provides specific provisions on the recusal process, and points out that “A technical investigator can apply for voluntary recusal, and a party can request for their recusal orally or in writing when a ground for recusal occurs”.²⁴

As for the Beijing IP court, it takes the lead in formulating the *Rules for the Implementation of the Recusal of Technical Investigators (Pilot)* (hereinafter “*Recusal Rules*”), where it establishes four working mechanisms to specify the recusal situations and procedures of TIs from different sources.²⁵ Firstly, to establish the classification recusal mechanism, where it provides different causes of recusal according to the circumstances in which the parties

²⁰ Yi Jun[仪军], Li Qing[李青], ‘Analysis of the Selection Issues of the Technical Investigators in Chinese Intellectual Property Trials[我国知识产权领域技术调查官选任问题探析]’ (*Zhichanli* [知产力], 28 May 2017) < http://www.sohu.com/a/144289347_221481 > accessed 3 June 2017.

²¹ Xu Bo (许波) & Yi Jun(仪军), ‘Construction and Perfection of the Technical Investigator System in China(我国技术调查官制度的构建与完善)’ (2016) 3 *Intellectual Property*(知识产权) 76, 78.

²² See Article 4 of the *Interim Measures Concerning the Participation of Technical Investigators in Litigation Activities* [关于技术调查官参与诉讼活动的暂行办法] (hereinafter “*Participation IM*”).

²³ See Article 5 of the *Participation IM*.

²⁴ *Ibid*.

²⁵ See *Rules for the Implementation of the Recusal of Technical Investigators (Pilot)* [技术调查官回避实施细则(试行)]..

concerned may have an interest.²⁶ Secondly, to establish the self-investigation on conflict of interest mechanism, where TIs should investigate the conflict of interest by themselves so as to ascertain whether they should be recused or not.²⁷ Thirdly, to establish the penalty for violation mechanism. For TIs who have been fully aware of the existence of any grounds for recusal but not challenged themselves, and seriously violate the legal procedure to result in cases being remanded, retried or other adverse consequences, penalties given should be varied according to their types in the office.²⁸ Fourthly, to establish the confidentiality mechanism for information obtained in duty. When a TI is found to have a reason for recusal during the litigation, the person has the duty to keep confidential all the information obtained in the previous proceedings after his or her recusal.²⁹

Disqualification and dismissal

Article 5 of the *Selection and Administration IM* enumerates some grounds when TIs should be disqualified: (1) those who have a record of criminal penalty; (2) those who have been discharged from public employment; (3) whose spouse or children engage in IP litigation within the jurisdiction of this court; (4) those who are subject to assignment evasion and cannot hold public office according to law. For the first three grounds, the regulations of Beijing IP court are slightly different, where it states that “(1) those who have been taken a party or government disciplinary action and are still under punishment; (2) those who is being examined

²⁶ For example, when patent agencies or law firms engaging in patent commissioning services, enterprises and public institutions, universities or scientific research institutions cooperating with other units in research projects, and the IP administrative authorities being in charge of patent examination.

²⁷ Under this mechanism, TIs from patent agencies or law firms should submit the conflict of interest retrieval results issued by their units. When TIs should not be recused after the investigation, they should sign a letter of commitment.

²⁸ More precisely, for authorized and employed technical investigators, in reference of the *Regulations on the Disciplinary Action of Personnel of People's Court* [《人民法院工作人员处分条例》] and in accordance with the seriousness of the infraction of discipline, they should be subject to the sanction of warning, demerit, demotion, dismissal or expulsion; for exchanged and part-time personnel, they should be dismissed and it should be notified to their original organization or competent department.

²⁹ “Since the exchanged and part-time TIs are not court officials from the perspective of organizational affiliation, it is of great significance for the fair trial of the technical cases.” Li Qing(李青), ‘Beijing IP Court Enacted the Rules for the Implementation of the Recusal of Technical Investigators (Pilot)[北京知产法院制定《技术调查官回避实施细则》]’ (Intellectual Property Beijing[知产北京], 29 March 2017); available at <https://mp.weixin.qq.com/s?__biz=MzI3OTA3MjQ3Mw==&mid=2650266655&idx=1&sn=ae7fcb971006dcd5f1d1619a42d5105a&chksm=f34e27a9c439aebff14d183fb9b0201551f8ff1af659a61ef34ccf68801c43a9210f6659e0fb&scene=0&key=b10a7c153a57fbb939e569ac67d3cd73e72682fd51dc5>.

for suspicion of violation of law or discipline; (3) those who have been dismissed from office or dismissed for less than 5 years”.³⁰

In addition, TIs should be relieved of their post by the court after the expiration of their tenure. But during their term of office, they should also be removed from office if any of the following circumstances occurs: (1) those who apply for resignation; (2) those who refuse to participate in the litigation without justified reasons and seriously affect the working process of the trial; (2) Having one of the circumstances listed in Article 5 of the *Selection and Administration IM*; (4) those who violate the laws and regulations relating to the trial work and engage in malpractice for personal gain, resulting in erroneous judgment or other serious consequences.³¹ While Beijing IP Court stipulates that “A technical investigator should also be removed from office if he or she has committed a crime, violated discipline severely, been assessed for incompetence for two consecutive years or is unfit to continue to serve as a technical investigator”.³²

Ranks and performance evaluation

The TIs in Guangzhou IP Court are ranked in light of their position, moral integrity, professional skills, task achievements and length of service and the measures for their grades, evaluation and promotion shall be formulated separately by the court.³³ Moreover, the court annually assesses the performance and professional integrity of TIs, and their assessment criteria refers to the relevant provisions of the *Civil Servant Law of the PRC*.³⁴ The trial department may, according to the specific performance of TIs involved in the litigation activities, submit the relevant assessment opinions to the technical investigation division. The assessment results should be taken as the main basis for the rewards and punishments of the TIs, and their training, appointment and removal.

³⁰ Xu Bo and Yi Jun (n 22).

³¹ See Article 9 of the *Selection and Administration IM*.

³² Xu Bo and Yi Jun (n 22).

³³ See Article 7 of the *Selection and Administration IM*.

³⁴ See Article 8 of the *Selection and Administration IM*.

ADVANTAGES AND DISADVANTAGES OF THE CURRENT SELECTION AND ADMINISTRATION SYSTEM OF TECHNICAL INVESTIGATORS IN CHINA

Since the TI system has been launched by the SIPC's for more than one year, the SIPC's have flexibly carried out technical investigation by different means, which highly promotes the trials of some difficult, complicated and long pending cases. Take the Guangzhou IP Court for example, since the establishment of the court, TIs or technical experts have assisted in a total of 114 cases, and their opinions on the technical matters have been adopted up to 100%.³⁵ Judging from the current situation, TIs are mainly needed in patent cases, with complicated issues in computer software, DNA sequence, and technical parameters of medical equipment. Meanwhile, a large number of cases are assisted by oral consultation.³⁶

Current status of the technical personnel in the SIPC's

The number of personnel in the technical investigation division in Guangzhou IP Court is expected to be 9, and now there are 6 TIs in the post. Besides, the Guangzhou IP Court has cooperated with the Guangdong Patent Examination Cooperation Center of SIPO, and 22 patent examiners are sent to the court in turn as technical advisers (assistants of the TIs), or the so called exchanged TIs.³⁷ In April 2016, the Guangzhou IP Court also employed 29 technical experts from different fields, with a term of three years,³⁸ forming a technical expert advisory committee as a right hand.³⁹

In October 2015, the Beijing IP court first appointed 37 TIs and 27 technical experts, among whom 3 exchanged TIs have exchange period of one or two years, and all of the technical

³⁵ See 'Guangzhou IP Court Applies Technical Investigators to Assist Judges[广州知识产权法院启用技术调查官 为法官“神助攻”]' (People's Daily[人民日报], 23 May 2017) <http://news.youth.cn/jsxw/201705/t20170523_9846925.htm> accessed 11 July 2017.

³⁶ Assisted by the technical investigators, the case withdrawal rate is over 60% in Guangzhou IP Court by 6 December 2016.

³⁷ Data provided by Judge Zhang from Guangzhou IP Court.

³⁸ Liu Guannan[刘冠南], 'Guangzhou IP Court establishes a Technical Expert Advisory Committee with Top Experts [广州知识产权法院成立技术专家咨询委员会 汇聚各行顶尖专家]' <http://news.ycwb.com/2016-04/19/content_21858254.htm>, accessed on 11 November 2016.

³⁹ Among those technical experts, 4 are in the field of machinery, 3 communications, 6 medical biology, 4 chemistry, 4 photoelectric technology, 4 material engineering, 4 electricity. Data provided by Judge Zhang from Guangzhou IP Court.

experts have senior title.⁴⁰ In 2016, the court also recruited technical investigators from the public, among whom 5 are authorized and 15 are employed ones as a supplement to the former.⁴¹

On 16th March, 2016, the Shanghai IP Court appointed the first batch of 11 TIs, among which 9 are part-time ones recommended by the relevant units and the other are the exchanged ones dispatched by the organizations like the Patent Examination Board of SIPO, with exchange period of one year.⁴² In addition, the court has previously hired 18 scientific and technical consultants,⁴³ so as to form the “4-in-1” technical fact-finding system, including TIs, technical consultants, expert jurors and technical appraisals.⁴⁴

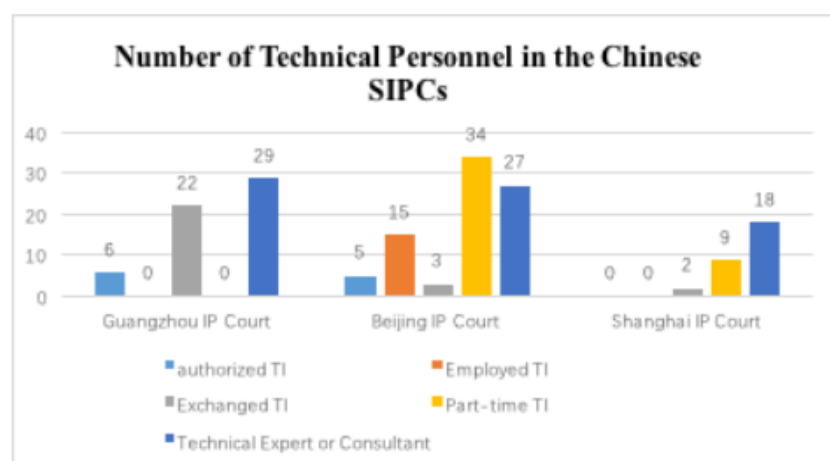


Figure 1

⁴⁰ “Among the 37 TIs, 3 exchanged TIs are from the Patent Office of SIPO, the Patent Examination Board of SIPO, and the Beijing Patent Examination Cooperation Center of SIPO respectively, and among the 34 part-time TIs, 15 are from the Patent Examination Cooperation Center of the SIPO, 16 from enterprises and public institutions, universities or scientific research institutions, 3 from patent agencies.” See ‘Beijing IP Court Establishes Technical Investigation Division Today[北京知产法院技术调查室今日成立]’ (*Zhichanli* [知产力], 22 October 2015) <<http://www.zhichanli.com/article/1499.html>> accessed 12 November 2016.

⁴¹ *Ibid.*

⁴² See ‘Shanghai IP Court Employs 11 Technical Investigators to Assist in Technical Disputes[上海知识产权法院聘11名技术调查官 专责技术争议]’ (*Pengpai News*[澎湃新闻], 16 March 2016) <<http://news.sohu.com/20160317/n440697623.shtml>> accessed 13 January 2017.

⁴³ See ‘Shanghai IP Court Employs 18 scientific and technical consultants[上海知识产权法院聘任18名科学技术咨询专家]’ (*China Youth News*[中国青年报], 24 April 2015)<<http://society.people.com.cn/n/2015/0424/c136657-26896054.html>> accessed 13 January 2017.

⁴⁴ Li Shulan, Chen Huizhen & Ling Zongliang (n 9).

Advantages

Through practice, we can see that the superiority of the selection and administration system of TIs in China mainly embodies in the following four aspects:

- 1) TIs are selected from a wide range of sources to cover a wide range of professional and technical fields, which can basically satisfy the needs of the trials concerning technical cases. In light of the foregoing analysis, the *TI Provisional Regulations* only prescribes the authorized TIs, which, from the perspective of trial demand, cannot allow them to fully play their role and meet the diverse needs of the trials concerning specialized cases in IP courts. Based on the actual situation, the SIPC's try to make exploration and innovation, and appoint TIs by different means, which, to some extent, can solve the problems such as the insufficient professional fields of TIs, difficulty in updating knowledge and limited scope of personnel for recruitment.⁴⁵
- 2) A higher percentage of TIs are from universities, scientific research institutions and production line, who can adapt to the situations with rapid development of technology and high-speed updating of knowledge. Moreover, TIs from the SIPO have both technical background and patent law knowledge, who can assist judges as great helpers.
- 3) Some specific provisions on the disqualification and removal of TIs are specified, which may guarantee the overall quality of the technical personnel.
- 4) The *Recusal Rules* enacted by the Beijing IP Court has established four mechanisms, which can enhance their consciousness of neutrality when performing duties, and promote the implementation of recusal system and therefore effectively protect the legitimate rights of parties and to avoid conflict of interests.⁴⁶

Disadvantages

As a fruit of the reform of SIPC's in China, the TI system has made some achievements at the beginning of its operation. However, as the system is still in the exploratory stage, some shortcomings in terms of its selection and management regulations are found in practice, mainly in:

- 1) Inconsistency of the selection criteria. Since the application of TI system, the SIPC's have made exploration in the selection issue, but there is inconsistency in their qualifications,

⁴⁵ Yi Jun and Li Qing (n 21).

⁴⁶ Li Qing (n 30).

length of working experience and moral integrity. For example, one of the conditions for the appointment of TIs in Guangzhou IP Court is “with more than 2 years of professional experience”, while that in Beijing IP Court is “more than 5 years of related work experience”. Then there will be a certain disparity in the quality of technical personnel for these two courts. When TIs are dispatched from Guangzhou to Beijing IP Court for assistance, their qualifications and impartiality may be challenged by the parties concerned, which obviously, may affect the efficiency of the trial and is hard to achieve its original aim. At the same time, if different courts set up different appointment criteria, it may hinder the cross regional communication and complementation among technicians due to the limited number of TIs.

- 2) The competency, neutrality and transparency of the TIs are still unknown and untested. Above all, due to the fact that TIs are autonomously employed by the district courts, the system has become a medium for the court to communicate externally, and the technical authority of TIs is greatly reduced due to the imperfection of the election system. Secondly, despite the fact that it has partially solved the problem of value conflict among experts, because TIs are the judicial auxiliary staffs who have no right to vote on case adjudication, it is in essence a temporary palliative, which merely puts the opinions of expert witnesses or judicial appraisers outside the court as the court’s position.⁴⁷ Moreover, since the organizational affiliation of the exchanged and part-time TIs remains in their original organization, they may have or be perceived to have some stakes with the cases when they perform their duties in their specialized fields, which will affect the impartiality and scientificity of the investigation.
- 3) Imperfection of the administration system. The *TI regulations* only provides some general provisions on the administration of TIs, and no specific rules are defined. While some courts have formulated provisional rules on this matter, they may differ in terms of tenure, grounds of removal and so on. For instance, the Guangzhou IP Court has not defined the term of office, and its grounds for disqualification and removal are different from that in Beijing IP court. Meanwhile, as the grounds for disqualification and dismissal are entry thresholds of the position, if standards adopted by the courts are different, it is hard to guarantee the overall quality of the technicians.

⁴⁷ Wang Hu [王虎], ‘Establishment and Improvement of Technical Investigation System in Chinese Patent Disputes [我国专利纠纷技术调查制度的确立与完善]’ (2016) Issue 2 Heibei Science [河北法学] 181, 186.

- 4) Insufficient number of TIs on duty. Data shows that in recent years the number of technical cases concerning patent, new plant varieties, computer software and other complicated issues increases year by year, and it is expected to grow further. Thus expanding the term of technicians is also a useful measure to ensure the efficiency of the litigation. However, as the construction of IP courts is still in its infancy in China, many mechanisms are not perfect, and in essence there are only 6 TIs in the Guangzhou IP Court with cross regional jurisdiction,⁴⁸ which is apparently insufficient to cope with the increasing number of new complex technical cases. In addition, in practice the exchanged or part-time TIs are mainly from the Patent Administration Department or its subordinate units, or recommended by the All-China Patent Attorneys Association or other associations, who may have some stakes with the parties concerned, so their neutrality and impartiality will be challenged because of the recusal system. While currently the number of TIs specializing in one field is limited, they should be selected from other technical fields when being recused, and in such case their professionalism may be questioned by the parties concerned. Hence how to make up for the vacancies of TIs because of recusal is also an urgent issue.
- 5) Ranks and performance evaluation should be further refined. From the previous analysis, the Guangzhou IP Court has laid down some rules on the ranks and performance evaluation of TIs,⁴⁹ while no explicit criteria for the measures of grades, evaluation and promotion. Besides, although the standards for assessing the work performance and professional integrity should refer to the relevant provisions of the *Civil Servant Law*,⁵⁰ in practice how to assess the work performance and personnel management of the exchanged and part-time TIs should be further explored as their organizational affiliation is not in the court. At last, since the part-time TIs do not have spot offices in court, and they all have their original jobs, it will be difficult for them to have pretrial communication or post-trial review with the judges timely.

⁴⁸ Another 22 are in essence technical advisers.

⁴⁹ See Article 7 of the *Selection and Administration IM*.

⁵⁰ see Article 8 of the *Selection and Administration IM*.

COMPARATIVE ANALYSIS OF THE SELECTION AND ADMINISTRATION SYSTEM OF TECHNICAL OFFICIALS IN OTHER JURISDICTIONS

To address the technical issues of IP cases, different jurisdictions have their own way to follow. For instance, Japan, Korea and Taiwan adopt the technical advisor system (or technical examination officer system), whose legislations and mature experiences are drawn on by the mainland China to establish the TI system, while Germany adopts the technical judge system and America establishes the expert witness system.⁵¹ Since the systems adopted by Japan, Korea, Taiwan and Germany are more similar, then we will further examine the regulations in those jurisdictions to see the differences and draw some lessons.

Japan

To address the technological nature of IP cases, Japan has developed the judicial research official system and the technical advisor system. Judicial research officials are full-time court officials whose role is to assist judges by conducting research on technical matters as required to conduct proceedings and render judgments in cases relating to patents, utility models, and other intellectual property.⁵² With a history of more than fifty years, the judicial research official system has already been accepted as an integrated part of IP litigation.⁵³ In order to make more reliable and convincing judgments in response to the rapid advances in technology, the IP High Court appoints technical advisors (or “expert commissioners”) to participate in court proceedings and provide judges and parties, from the viewpoint of a fair and neutral adviser, with explanations on the technical matters involved in the lawsuit.⁵⁴ Technical advisors are appointed as part-time officials from among leading experts nationwide, including university professors and researchers in the area of cutting-edge sciences and technologies.⁵⁵ Generally speaking, judicial research officials have technical knowledge in general while technical advisors have expertise in specific technical fields, both with the aim of assisting court in resolving disputes appropriately and speedily.

⁵¹ Yi Jun and Li Qing (n 21).

⁵² See Article 92-8 of the *Code of Civil Procedure*.

⁵³ See the organization of Japanese Intellectual Property High Court
<<http://www.ip.courts.go.jp/eng/aboutus/organization/index.html>> accessed 5 July 2017.

⁵⁴ See Article 92-2 of the *Code of Civil Procedure*. See also the Organization of Japanese Intellectual Property High Court (n 53).

⁵⁵ See the organization of Japanese Intellectual Property High Court (n 54).

Current status

At present, 21 judicial research officials specializing in intellectual property cases have been assigned to the Japanese courts as full-time court officials.⁵⁶ Among those judicial research officials of the IP High court, one has experience as a patent attorney, and the other have experience in the fields of machinery, chemistry or electricity as an examiner or appeal examiner of the Japan Patent Office (JPO), who will return to the JPO or his patent firm after spending a certain period at the IP High Court.⁵⁷

So far, about 200 leading experts have been appointed as technical advisors in charge of IP cases as part-time court officials,⁵⁸ who cover a wide range of scientific fields. Courts designate the most suitable technical advisors from a wide range of candidates, on a case-by-case basis, considering the nature and content of the dispute.⁵⁹ In order to achieve higher quality of technical explanation and smoother case management, the IP High Court usually designates more than one, and three if possible, technical advisors in one case as an expert committee.⁶⁰

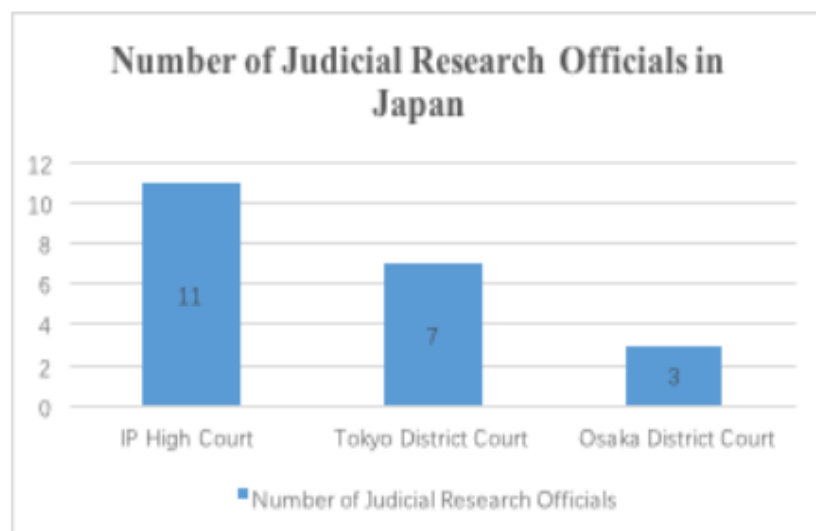


Figure 2

⁵⁶ Data from the Japanese Intellectual Property High Court

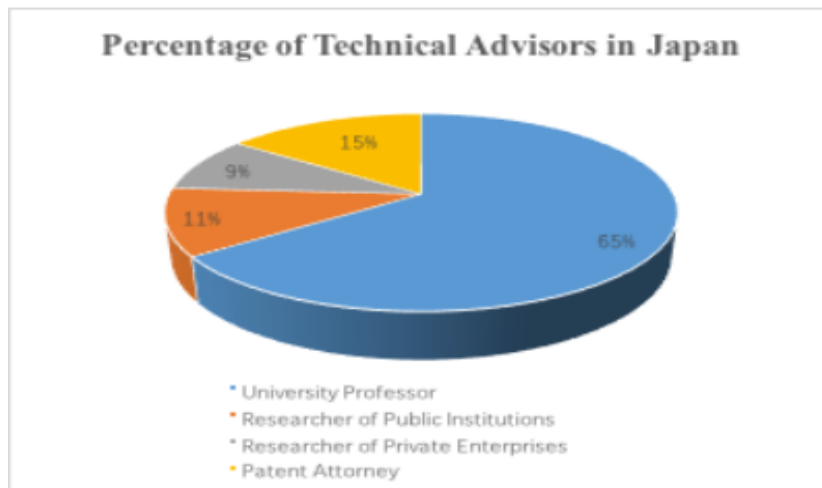
<<http://www.ip.courts.go.jp/eng/documents/expert/index.html>> accessed 4 May 2017.

⁵⁷ Shinohara Katsumi, 'A Retrospective and a Prospective Look at the First Year of the Intellectual Property High Court' (2006) 9 AIPPI Journal 195, 201.

⁵⁸ Data from the Japanese Intellectual Property High Court (n 57).

⁵⁹ See Ling Zongliang[凌宗亮], 'Technical Fact-Finding Mechanism in Japanese IP Trials[日本知识产权审判中的技术事实查明制度]' (Zhichanli[知产力], 28 October 2016). See also the *Technical Advisors System*; available at <<http://www.ip.courts.go.jp/eng/documents/expert/index.html>>.

⁶⁰ Shinohara Katsumi (n 58) 195, 213.

**Figure 3****Appointment qualifications**

There are three major requirements for a qualified judicial research official to be appointed: 1) being proficient in technical matters, especially in the field of the utility model and patent; 2) having the experience of participating in a trial in JPO around 15 to 31 years; 3) selecting procedure is carried out in a wide range of technical fields.⁶¹

Selection channels

The majority of the judicial research officials are dispatched from JPO, while a few selected from among lawyers.⁶² As for technical advisors, they are appointed by the Supreme Court among leading experts such as university professors and researchers of public institutions.⁶³

Assignment Method and Term of Office

Generally speaking, a judicial research official should be suspended from JPO during his dispatch, and he will return to the JPO after spending a certain period at the court, normally three years.⁶⁴ While technical advisors are affiliated to the court designated by the Supreme Court, and participate in the trials according to the court's assignment, whose term of office is

⁶¹ Qiang Ganghua[强刚华], 'Study on the Construction of Technical Investigator System in Chinese Intellectual Property Right Courts[试论中国知识产权法院技术调查官制度的建构]' (2014) *Electronics Intellectual Property*[电子知识产权] 84, 84-85.

⁶² Ibid.

⁶³ See the *Technical Advisors System* (n 60)

⁶⁴ Qiang Ganghua (n 62), 85.

normally 2 years.⁶⁵ Unlike technical advisors who participate only in cases to which they are assigned, judicial research officials are supposed to participate in proceedings of all cases relating to IPRs, where technical matters are disputed. In a dispute over highly specialized or advanced technology, both judicial research officials and technical advisors may participate in the proceedings.⁶⁶

Disqualification and challenge

The *Japanese Code of Civil Procedure* has set forth some provisions to disqualify and challenge the judicial research officials and technical advisors. In general, if there are circumstances with regard to a judicial research official or technical advisor that would prejudice the impartiality of a judicial decision, the court may make a judicial decision of disqualification and a party may challenge such judicial research official or technical advisor.⁶⁷

Korea

The establishment of the Patent Court in South Korea, on March, 1998, introduced a new system of technical examiners. The technical examiners (or “technical advisors”) have degrees in various fields of natural science, technology, and other professionally related fields to assist judges on the technical matters of patent and utility model cases by providing consultation and expertise to judges.⁶⁸ The *Court Organization Act* as well as the *Supreme Court’s Rules Concerning Technical Examiners* specify the legal status, qualifications and legal responsibilities of the technical examiners.⁶⁹

Current status

Currently, 21 technical advisors with long-term experiences in various scientific fields, such as mechanical engineering, electronic engineering, chemical engineering and bio-engineering serve at the Patent Court.⁷⁰

⁶⁵ Ling Zongliang (n 60).

⁶⁶ See the *Technical Advisors System* (n 60).

⁶⁷ See Article 92-6, Article 92-9, Article 23, 24 & 25 of the *Japanese Code of Civil Procedure*.

⁶⁸ See *The Supreme Court of Korea*, p22; available at <
<http://www.supcourt.uz/files/library/Верховный%20суд%20Кореи.pdf>>.

⁶⁹ See Article 54-2 of the *Court Organization Act* & Rule 2 of the *Supreme Court’s Rules Concerning Technical Examiners*.

⁷⁰ See the organization of the Patent Court of Korea
<http://patent.scourt.go.kr/patent_e/intro/intro_04/index.html> accessed 3 July 2017.

Figure 4⁷¹

Selection channels and appointment qualifications

Highly technical matters, which the Patent Court is routinely called for to deal with, are referred to technical advisors, who must satisfy one of the following prerequisites: “more than 5-year experience as a technical examiner or a trial examiner at KIPO; more than 7-year experience as a government official dealing with matters related to industrial or scientific technology, and more than 5 years spent in above Level 5 positions; a master's degree and 10-year experience in the relevant field; a doctorate degree in the relevant field; a National Engineering Certificate obtained in accordance with the National Engineering Certificate Law”.⁷²

So far, the majority of the technical examiners are dispatched from the Korean IPO. And it should clearly prescribe the dispatching date, qualifications and other necessary matters when the related government agencies dispatch the public officials.⁷³

⁷¹ Data from Judge Young Gi Kim, ‘Overview of Korean Patent Litigation System & IP Hub Court Plan’ (EDTX Bench and Bar Conference, 2016) <<http://www.edtxbar.com/wp-content/uploads/2014/07/Kim-Korean-Pat-Lit-System-Thur-945.pdf>> accessed 7 July 2017.

⁷² See Rule 2 of the *Supreme Court's Rules Concerning Technical Examiners*. See also Ma Hanfei[马滄菲] & Han Yuanmu[韩元牧], ‘A Brief Review of Documentary Facts: From the Establishment of Technical Investigator System in Chinese Intellectual Property Courts[简述献事实之审查：从我国知识产权法院设立技术调查官制度谈起]’ (2015) 5 China Invention and Patent [中国发明与专利] 52, 54.

⁷³ See Rule 6 of the *Supreme Court's Rules Concerning Technical Examiners*.

Other special regulations

Apart from technical examiners, the Korean Patent Court also has advisory councils on science & technology to serve as a conduit between the scientific research institutes and the court so as to enhance the court's credibility. At present, there are 11 advisory councils serving in the Patent Court, who are responsible for the establishment of an advisory committee on science and technology, stimulating research motivation on 'patent academies' and providing lectures on cutting-edge issues of science and technology.⁷⁴

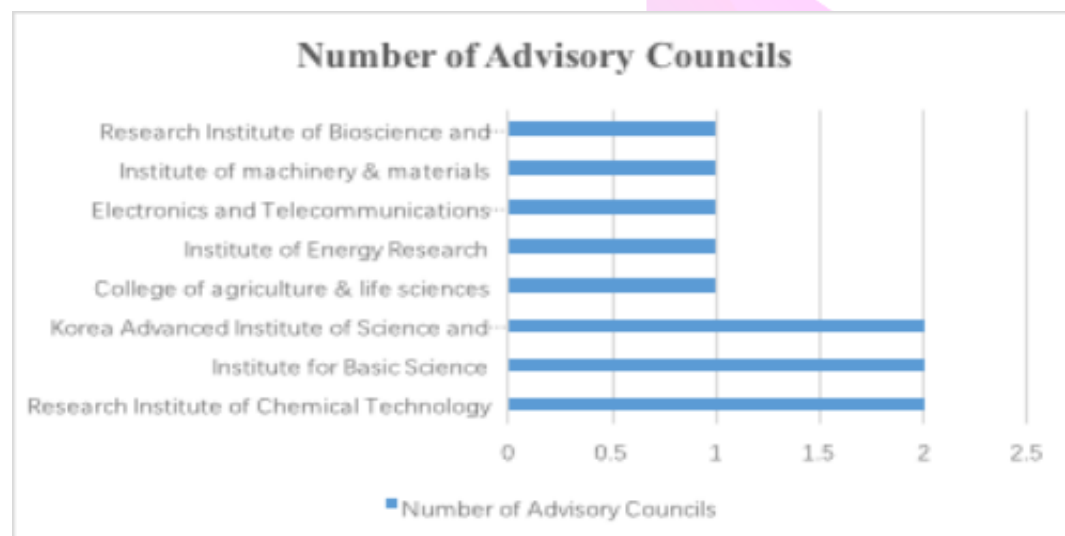


Figure 5

Taiwan

Established on 1 July, 2008, the IP Court of Taiwan is a specialist court dealing exclusively with matters relating to IP rights, including patents.⁷⁵ The Taiwan IP Court, after having looked at the Japanese and South Korean legal systems, introduced technical examination officers to assist judges. On the instruction of a judge, these officers collect and analyze technical information and provide feedback. Suggestions by technical examination officers only serve as a reference for judges, and the officer's position is equal to that of a judge's assistant.⁷⁶

⁷⁴ Data from the Patent Court of Korea

<http://patent.scourt.go.kr/patent_e/intro/intro_06/intro_06_01/index.html> accessed 23 July 2017.

⁷⁵ JK Lin and HG Chen, 'Patent Litigation in Taiwan: Overview' (Thomson Reuters, 1 January 2016)

<[https://uk.practicallaw.thomsonreuters.com/Document/Id509ac85ba6211e598dc8b09b4f043e0/View/FullText.html?transitionType=CategoryPageItem&contextData=\(sc.Default\)](https://uk.practicallaw.thomsonreuters.com/Document/Id509ac85ba6211e598dc8b09b4f043e0/View/FullText.html?transitionType=CategoryPageItem&contextData=(sc.Default))> accessed 13 July 2017.

⁷⁶ Chiang Ya-chi, 'Shadow Judges' Need Their Roles Well Defined' (2013) 8 Taipei Times.

Current status

According to Article 7 of the *IP Court Organization Act*, “The type and the required number of personnel of the IP Court shall be determined in accordance with the Schedule.”⁷⁷ There are currently 13 technical examination officers at the IP Court with expertise in fields such as electrical engineering, chemistry, and biotechnology. Most are patent examiners on secondment from the Taiwan IPO.⁷⁸

Part of the Schedule to Article 7 of the Intellectual Property Court Organization Act⁷⁹

Type of Court No. of Personnel Title	First Type	Second Type	Third Type	Current
	52~104	26~52	13~26	13
Technical Examination Officer				

Table 1

Selection channels and appointment qualifications

Taiwan’s Legislature authorized the establishment of the technical examination officers’ office when it established the IP Court in 2008.⁸⁰ The IP Court may recruit professionals from various industries as technical examination officers in accordance with the applicable laws and the

⁷⁷ See Article 7 of the *Intellectual Property Court Organization Act*.

⁷⁸ Christine Chen, ‘Technical Examination Officers at Taiwan’s IP Court’ (Winkler Partners, 21 April 2015) <<http://www.winklerpartners.com/?p=5402>> accessed 13 July 2017.

⁷⁹ Remarks: The Intellectual Property Court shall be annually regarded as the first-type court if it handles over 10,000 cases; second-type if it handles over 5,000 but less than 10,000 cases; and third type if it handles less than 5,000 cases.

⁸⁰ According to Article 15 of the *Intellectual Property Court Organization Act*, “The technical examination officers' office shall consist of technical examination officers with a recommendation rank between the 8th and 9th grade, half of whom may have a selection rank of the 10th grade. If there are more than two technical examination officers, the technical examination officers' office shall have a chief technical examination officer with a selection rank between the 10th and 11th grade... And the technical examination officers' office may be divided into teams if required by the docket load, the leader of each team shall be a technical examination officer with no particular ranking.”

Judicial Yuan may transfer professionals with expertise in intellectual properties or specific technologies to serve as technical examination officers.⁸¹

The *IP Court Organization Act* as well as the *Regulations Governing Transfer of Technical Examination Officers of Intellectual Property Court (Regulations TEO)* specifies the criteria and selection channels of a technical examination officer, where one has to meet the following conditions: “Has served as a patent examiner or trademark examiner for over three years in total with good track record; or has graduated with a master's degree or above from a graduate school of a public or private university or an independent college, or a foreign college or independent institute recognized by the Ministry of Education, and served as a patent examiner or trademark examiner or assistant examiner for over six years in total with good track record; or has graduated with a diploma in a relevant field from a public or private college or a foreign college recognized by the Ministry of Education, and served as a patent examiner or trademark examiner or assistant examiner for over eight years in total with good track record; or is or was a lecturer in a relevant program of a public or private university or independent college for over six years in total, or an assistant professor, associate professor, or professor for over three years in total, or a research fellow at a public or a private professional research institute for over six years, and has specialized publications on intellectual properties with proof.”⁸²

Term of office

In regard to the term of office, it stipulates that “the transfer period shall not exceed two years and may be extended for an additional year if necessary.”⁸³ Besides, “Upon expiration of the

⁸¹ See Article 15 of the *IP Court Organization Act*. See also Article 3 of the *Regulations Governing Transfer of Technical Examination Officers of Intellectual Property Court* (hereinafter “*Regulations TEO*”), “Any person who meets any of the following qualifications may be transferred to act as the technical examination officer: 1. Current or former patent examiner or trademark examiner with over three years of service in total with good track record; 2. Current or former patent or trademark examiner or assistant examiner with over six years of service in total with good track record, who graduated with a Master’s Degree or above from a graduate school of a public or accredited private university, or an independent college, or a foreign university or independent institute recognized by the Ministry of Education; 3. Current or former patent or trademark examiner or assistant examiner with over eight years of service in total with good track record, who graduated with a diploma in a relevant field from a public or accredited private college or a foreign college or higher level of educational institution recognized by the Ministry of Education; 4. Current or former lecturer in a relevant program of a public or accredited private university, or an independent college with over six years of service in total, or an assistant professor, associate professor or professor for over 3 years in total, who has specialized publications on intellectual properties with proof; or 5. Current or former researcher, associate researcher or assistant researcher of a public or private professional research institution with over six years of service in total, or someone who has specialized talent in special technology or technological development that is not often seen in or outside the country, and who has specialized publications on intellectual properties with proof.”

⁸² See Article 16 of the *Intellectual Property Court Organization Act*.

⁸³ See Article 4 (1) of the *Regulations TEO*.

transfer period in the preceding paragraph and transferring back to the original organization, the person may not be transferred again within the next two years.”⁸⁴

Challenge and disqualification

Pursuant to the *IP Case Adjudication Act*, “Challenge of a technical examination officer shall be governed mutatis mutandis by the rules of challenge of a judge as provided in the Code of Civil Procedure, Code of Criminal Procedure and Code of Administrative Litigation Procedure, as the case may be, depending on the nature of the action involved.”⁸⁵ Therefore, parties can refer to those provisions to see whether a technical examination officer can be challenge of.

Management

As for performance evaluation, during the transfer period, regular performance evaluations as well as business and personal leave of the transferred technical examination officers shall be handled by the IP Court. And the regular performance evaluations and information relating to business and personal leaves as well as attendance and absence shall be forwarded to the officer’s original organization at the end of each year or upon expiration of the transfer period, and transferring back to the original organization to be used as reference for rewarding commendations or disciplinary action and merit evaluation.⁸⁶ Moreover, performance evaluation and promotion of transferred technical examination officers subject to performance evaluation shall be handled by their original organization in accordance with relevant regulations.⁸⁷ And the IP Court “shall annually review the eligibility of transferred technical examination officers and transfer any officer back to his/her original organization if he/she is found ineligible or his/her transfer is no longer required.”⁸⁸ Besides, the *Regulations TEO* also provides three different situations for the payment of salary.⁸⁹

⁸⁴ See Article 4 (2) of the *Regulations TEO*.

⁸⁵ See Article 5 of the *IP Case Adjudication Act*.

⁸⁶ See Article 5 of the *Regulations TEO*.

⁸⁷ See Article 6 of the *Regulations TEO*.

⁸⁸ See Article 8 of the *Regulations TEO*.

⁸⁹ According to Article 7 of the *Regulations TEO*, “The payment of salary to the transferred technical examination officers during the transfer period shall be made according to the following: 1. Where the Civil Service Regulations on Absence from a Position Without Pay shall apply or be applicable mutatis mutandis, salary payable to those meeting the appointment requirements of technical examination officers who are absent from their position without pay at their original organization shall be paid by the Intellectual Property Court in the amount applicable to the corresponding grade of technical examination officer. 2. Where the Civil Service Regulations on Absence from a Position Without Pay shall apply or be applicable Mutatis mutandis, salary payable to those who are not absent from their position without pay at their original organization shall be paid by their original organization. 3. For transferred staff other than those described in the preceding two

Germany

To identify the technical facts, Germany mainly adopts the technical judge system. In Germany, the cases concerning the patents granted and confirmation are trialed by courts different from that of patent infringement.⁹⁰ The Federal Patent Court (FPC) is one of the highest federal courts with jurisdiction over cases involving the granting, denial or withdrawal of industrial property rights.⁹¹ The judges of the FPC can be divided into legally qualified judges and technically qualified judges.⁹² And the FPC is the only court which is equipped with lawyers as well as technical judges sitting on its boards with jurisdiction over technical property rights.⁹³ The technically qualified judges, or technical judges, shall encompass members of the competent tribunal who, in addition to an appropriate legal qualification, are also obliged to have a technical qualification. They have sufficient technical knowledge, and knowledge gained by experience in their field of expertise, to allow them decide patent cases without the need to obtain external expertise.⁹⁴

Current status

The FPC currently has 27 panels (or boards) issuing judicial decisions, equipped with varying numbers of judges with various backgrounds, depending on their jurisdiction. The FPC currently comprises 7 nullity boards, 1 juridical board of appeal (being a nullity board at the same time), 12 technical boards of appeal, 6 boards of appeal for trademarks, 1 board of appeal for utility models and 1 board of appeal in plant variety cases.⁹⁵ Decisions made by the FPC

paragraphs, their salary shall be paid by their original organization or by the Intellectual Property Court in accordance with the Regulations governing Selection and Appointment of Technical Examination Officers of Intellectual Property Court.”

⁹⁰ Yang Haiyun(杨海云) & Xu Bo(徐波), ‘Constructing the Technical Fact-Finding Mechanism with Chinese Characteristics: The Path of "Relying on Technical Investigator System with Support from Technical Judge System"(构建中国特色的技术性事实查明机制——走“技术调查官制度为主、技术法官制度为辅”的机制之路)’(2015) Issue 6 Chinese Journal of Forensic Sciences(中国司法鉴定) 7, 8.

⁹¹ See the Federal Patent Court of Germany <<https://www.bundespapentgericht.de/cms/index.php?lang=en>> accessed 15 July 2017.

⁹² According to Section 65 of the *Germany Patent Act*, judges of the Federal Patent Court must be qualified under the terms of the German Judiciary Act to hold judicial office (legally qualified members) or have expertise in a field of technology (technically qualified members).

⁹³ See the *Federal Patent Court* <https://www.bundespapentgericht.de/cms/media/Oeffentlichkeitsarbeit/Veroeffentlichungen/Informationsbroschueren/infobroschuere_en.pdf> accessed 15 July 2017.

⁹⁴ Hao Ma, Eugene Arievidh and Mathias Karlhuber, *Report on Specialized IP Jurisdictions* (ICC 2015). See also Norbert Hansen, ‘Germany: BPATG Judges Have adequate Technical Expertise’ (2015); available at <<http://www.maiwald.eu/pdf/Hansen201506.pdf>>.

⁹⁵ See the *Federal Patent Court* (n 97), 8.

may be appealed to the Federal Court of Justice (FCJ), but the FCJ does not have any technical judges or other technically qualified members and it generally draws on the services of external experts.⁹⁶

Composition of the Boards⁹⁷

Title No. of Personnel Type of Board		Legally Trained Member	Technically Trained Member	Presiding Judge
Nullity Boards		2	3	Lawyer
Juridical Board of Appeal		3	0	Legally trained member
Technical Boards of Appeal		1	3	Technical trained member
Boards of Appeal for Trademarks		3	0	Legally trained member
Board of Appeal for Utility Models	Cancellation	1	2	Legally trained member
	Rejection of the Application	2	1	
	Other	3	0	
Board of Appeal in Plant Variety Cases		2	2	Legally trained member

Table 2

⁹⁶ Data from the Federal Patent Court (stand for June 2017)

<https://www.bundespapentgericht.de/cms/media/Das_Gericht/Organisation/organigramm_en.pdf> &
<https://www.bundespapentgericht.de/cms/media/Das_Gericht/Organisation/geschaeftsverteilung.pdf> accessed
15 July 2017.

⁹⁷ Remarks: The board of appeal in plant variety cases is responsible for ruling on appeals against decisions by the boards of appeal at the Federal Office for Plant Varieties. When asked to rule on appeals against decisions by the Federal Office for Plant Varieties concerning changes to the variety denomination in accordance with Section 30 Plant Variety Protection Act, the board sits with three legally trained members.

Selection criteria

The *Germany Patent Act (GPA)* and the *German Judiciary Act (GJA)* set forth the selection criteria of a technical judge, where it stipulates that “Only a person who has passed a state or academic final examination in a technical or natural science subject at a university, technical or agricultural institution of higher education, or at a mining academy in Germany or in another Member State of the European Union or in another Contracting Party to the Agreement on the European Economic Area, and who thereafter has worked in the field of natural sciences or technology for at least five years and who has the requisite legal knowledge may be employed as a technically qualified member.”⁹⁸ Moreover, technical judges is generally selected from the senior technical examiners of the German Patent and Trade Mark Office, who are not judicial assistants but have the same legal status of professional judges.⁹⁹ What’s more, the President of the FPC exercises disciplinary supervision over them and they should be appointed for life.¹⁰⁰

Exclusion and objection

In accordance with Section 27 (6) of the *GPA*, “the Code of Civil Procedure concerning the exclusion of and objection to court personnel shall apply mutatis mutandis to the exclusion of and objection to the patent examiners and other technically qualified members of the Patent Divisions...And the Patent Division shall decide on the objection request in so far as a decision is necessary.”¹⁰¹

Characteristics of the Selection and Administration System of Foreign Technical Officials

From what have been discussed above, the characteristics of the selection and management system of foreign technical officials can be sum up as follows:

- 1) A wide range of selection channels. As long as you are patent examiners, researchers from scientific research institutions or scholars who satisfy certain conditions can be selected as technical investigators, such as that in Japan, South Korea and Taiwan. Besides, technical advisors in Japan can also be selected among patent agents. The

⁹⁸ See Section 26(3) & Section 65 of the *Germany Patent Act* and Section 120 of the *German Judiciary Act*.

⁹⁹ Ma Hanfei & Han Yuanmu (n 73).

¹⁰⁰ According to Section 65(3) & (4) of the *Germany Patent Act*, “The judges shall be appointed for life by the Federal President unless otherwise provided in section 71. The President of the Federal Patent Court exercise disciplinary supervision over the judges, civil servants, employees and workers.”

¹⁰¹ See Section 27 (6) of the *Germany Patent Act*.

extensive sources of technical officials can help expand the coverage of the professional technology, which undoubtedly, will improve the efficiency of the technical investigation, especially those front-line staffs of production and scientific research who are more sensitive to patent innovation and frontier technology.

- 2) Relatively high appointment criteria. Most of the technical officials require for at least 5 years of professional technical work experience, or having outstanding achievements in professional research. It can be observed that although the technical matters involved in patent cases should be interpreted by technical officials from the ordinary technical personnel's point of view, the technical personnel or scientific researchers who have rich experience can solve the technical problems more accurately.
- 3) They are generally served the same as court officials, but differ in the term of office. For instance, the technical judges in Germany should be appointed for life, just as that of professional judges, while technical officials in Japan and Taiwan have relatively fixed term limit. The nature of the technical officials who serve as court officials allows them to be independent of the parties concerned, thereby ensuring the neutrality of the technical investigation to a certain extent.
- 4) Relatively well-developed selection and management system. Although different jurisdictions have adopted different fact-finding mechanisms, they all enact corresponding laws or rules to regulate their implementation, so that different courts in a country or region have unified standard to follow concerning the selection and management issues of technical officials to avoid contradiction.
- 5) Different kinds of technical personnel cooperate with each other to ensure the impartiality and efficiency of the trial. From the above analysis, we can see that most courts have leveraged more than one mechanisms to aid judges with the technical issues, such as the judicial research officials and the technical advisors in Japan, technical examiners and advisory councils in South Korea and so on.

SUGGESTIONS TO IMPROVE THE SELECTION AND ADMINISTRATION SYSTEM OF TECHNICAL INVESTIGATORS IN CHINA

The core of the TI system lies in its professionalism, neutrality and openness, which should also be the guidance to explore the selection and administration system of TIs in China. Therefore, some suggestions are provided as follows to improve the issues concerned.

1) Establishing the unified selection criteria

In terms of the selection criteria, IP courts should adopt a unanimous standard for different kinds of TIs: (1) a bachelor's degree or above in science and engineering; (2) more than 5-year working experience in production, management or research or other relevant technical field; (3) Intermediate professional qualification or above; (4) less than 45-year old, and the age limit can be unrestricted after the agreement of the special committee under special circumstances. As for employed TIs, their appointment should also refer to the relevant provisions concerning the appointment of civil servants provided by the central organization department and the local human resource department.

At the same time, there should be a certain requirement in integrity, where TIs should be disqualified when any of the following situations occur: (1) having a record of criminal penalty; (2) having been removed from office or been terminated the labor or employment contract due to violation of discipline; (3) having a record of a party or government discipline; (4) being examined for suspicion of violation of law or discipline; (5) other inappropriate situations to be a TI.

2) Disclosing the conditions and procedures for appointment

The court should make strict rules on the selection of TIs, disclosing the criteria and procedures for appointment and specifying the disqualification matters. With regard to the selection procedures, a special committee for the selection of TIs should be set up with combination of self-recommendation and unit recommendation, and the actual situations of the TIs being selected should be disclosed to the public timely and be subjected to supervision so as to achieve the transparency and openness.

3) Specifying their types and tenure

The professional level is the core foundation of the TI system, and how to maintain the stability of its professional level is one of the most important issues in the operation of the system. In order to avoid being disjointed with the development of the relevant technical fields and gradually lose the ability to perform their duties, it's essential to apply the tenure system to guarantee the quality of the TIs. However, the term of the office should not be too short, otherwise, it will be inappropriate for the TI to leave the court soon after he has just adapted to the work.¹⁰² In light of the above analysis, Beijing IP Court has set up four types of TIs, and specified different tenures accordingly, which is rational to some extents. Taking into account the implementation of Japan, South Korea and Taiwan, in light of the authorized personnel, they are bounded by the *Civil Servant Law*, with a three to five-year term and no continuous tenure is recommended. After their term ended, they can be converted to other types of TIs. As for the employed ones, they may sign the labor agreement with a term of 2 to 3 years, and may renew it or convert it to non-fixed term one after expiration. In terms of the part-time technical investigators, their term can be 2 to 3 years and may renew as well, whilst for the exchanged ones, their term is generally not less than 1 year.

4) Unifying and refining the recusal system

The IP courts should strengthen their system construction, and make detailed provisions on the neutrality, avoidance and other issues pursuant to the operation practice of the TI system. Since the *Recusal Rules* drafted by the Beijing IP court has comprehensive regulations, it can serve as a model for other courts on this regard. Moreover, the refinement of the system can also exclude the question of neutrality resulting from “the patent administrative departments and agencies, as well as law firms as the source of TIs”, so as to ensure the universality of the source of election and the professionalism of the team.

5) Strengthening the daily work management and regular assessment

In view of the possible corruption risks in the work of TIs, the court should formulate corresponding prevention and control measures, and strengthen the training of neutrality. Besides, the clean government should be an important part of the assessment and a file should be established to record their work performance.

¹⁰² Qiang Ganghua (n 62), 88-89.

CONCLUSION

How to select and manage the TIs logically and scientifically is the basis for the well-being and scientific development of such system. Under the current situation, various factors should be considered, such as the types of cases, personnel system, occupational security and so on. On the premise of satisfying the needs of IP trials, the court can boldly innovate the selection and management ways of the technical personnel and continue to explore and perfect the system in practice.

