SCIENTIFIC CULTURE
www.sci-cult.com

SCIENTIFIC CULTURE, Vol. 12, No. 5, (2026), pp. 422-435
Open Access. Online & Print

DOI: 10.5281/zenodo.1250038

INVENTORSHIP INVENTORSHIP IN LAW OF PATENTS: A COMPARATIVE STUDY OF THE LEGAL FRAMEWORK BETWEEN INDIA AND THE UK

Lakshminarayanan Ramachandran[1]*, Avishek Chakraborty[2]

[1] *CHRIST University, School of Law, Bangalore.*
[2] *Samsung R&D Institute India, Bangalore.*

Received: 01/12/2025
Accepted: 02/01/2026

Corresponding author: Lakshminarayanan Ramachandran
(lakshminarayanan.r@res.christuniversity.in)

ABSTRACT

The definition for the "true and first inventor" in the Indian Patents Act, 1970, is very broad. Also, there is no definition at all for "joint inventor" in the Indian Patents Act, 1970. Since India is witnessing a rapid progress in technology development, an emergence of multi-party research via local and foreign collaborations, and an increase in India generated patent filings, absence of a definition with usable scope and subsequent criteria for determining "true and first inventor" and "joint inventor" can lead to significant business and emotional disputes for the inventors and the patent applicants. This study examines the similarities and differences between the patenting frameworks in India and the UK to understand and clarify the criteria for determining "true and first inventor" and the "joint inventor" for patented inventions in India. This study proposes using the "deviser" and "inventive concept" principles from the UK to identify the "true and first inventor" in India. To identify the "joint inventor" in India, this study proposes using a functionality-oriented approach used in the UK. This study recommends amending Section 2(1)(y) of India's Patents Act to clarify the scope of the "true and first inventor" and also include the definition for the "joint inventor" based on the definitions applied in the UK. These recommendations will help modernise India's patent regime, enable a collaborative approach to technology development, and provide a fair recognition to people who provided inventive contribution.

KEYWORDS: true and first inventor; joint inventor; joint research; India patent; India; UK

1. INTRODUCTION

In India, the Indian Patents Act, 1970, the Indian Patents Rules, and the Manual of Patent Office Practice & Procedure are the key sources of information available for the stakeholders to navigate the patenting process. The inventors, the patent applicants, the patent agents, the patent attorneys, the patent examiners, the Controller of Patents, and the judiciary are the stakeholders who use these sources for legal compliance while applying for a patent in India. The legal compliance includes subitting the information regarding the inventor's legal status, such as whether he is a natural person, whether he is an Indian resident, whether he is the original inventor, and whether he has the proof of the right to file and obtain a patent in India. If the information about inventor should be accurate, then the determination of who is the "true and first inventor" should also be accurate. If the invention is created jointly, then all contributors who need to be recognised as "joint inventors" should be determined.

Section 2(1)(y) of the Patents Act, 1970 excludes a person who imported the invention into India and a person to whom the invention is communicated from abroad as "true and first inventor". This definition is very broad. The Indian government established these exclusionary criteria post-British rule, and they are now over five decades old. The Indian Patents Act does not have any other criteria for defining the "true and first inventor" or the "joint inventor". This is a legislative void, and it poses a challenge for accurately determining the inventorship in India in the context of collaborative research.

Collaborative research enables India to advance into the domain of creating modern, interdisciplinary technologies. Just keeping the legislative void without re-evaluation of the criteria for determining inventorship under the Indian Patents Act can lead to ambiguity and complexity in identifying the inventor, especially the "joint inventor", in the context of modern development. Such ambiguity and complexity can, in the long term, cause legal, business, economic, and emotional repercussions for the stakeholders involved in the patenting ecosystem in India. Therefore, the criteria for governing the inventorship determination in India needs to be re-evaluated.

This study understands the criteria for determining inventorship in India by examining the similarities and differences between the legal framework in India and the UK. The UK's framework was inspirational because it is a Commonwealth jurisdiction having a well-defined legal framework. A doctrinal research methodology and an in-depth reasoning were applied. The similarities and differences were understood by analysing each and every point of their legal framework for inventorship determination.

The Patents Act, the Patents Rules, and the Manuals of Patent Practice and Procedure from both India and the UK were primarily referred. The Committee reports, the Patent Office publications and decided cases from India and the UK were also referred. The secondary sources were the peer-reviewed books, the legal commentaries, the international dictionaries of patent terminology and scholarly articles. There was no specific time range set for the data retrieval during the search.

In summary, since the awareness in India about the intellectual property is already very low, the broad definition for "true and first inventor" and no definition for "joint inventor" in the Patents Act can cause problems when the stakeholders collaborate within or outside their company. The Indian Patents Act should be amended proactively to prevent such problems by taking inspiration from the inventorship framework in the UK. This study is limited by the lack of sufficient information published regarding the inventorship in both India and the UK.

2. INVENTORSHIP IN INDIA – AN OVERVIEW

India's transformation storyline in recent years goes beyond Globalisation [1], advancement [2] of technology, liberalisation, and indigenous product development [3]. The transformation initiatives, [4] such as Startup India [5], Digital India [6], and Make in India [7] have accelerated technological transformation [8] and positioned India as an international hub for innovation, collaboration and investment [9]. Increased funding [10] partnerships with foreign investors have become possible for Indian startups. Multinational companies in India do joint research their overseas headquarters. India's technological and economic development [11] have also been catalysed due to the increase in collaboration [12] between the industry and the academia.

The number of patent applications filed for inventions originating from India has increased [13] in recent years. The Global Innovation Index published by the World Intellectual Property Organisation (WIPO) shows that India's position has surged [14] from 91st position in 2015 to 38th position in 2025". There is going to be a continued upward trajectory in the number of inventions originating in India [15], due to domestic and foreign collaborations by Indian inventors. In this evolving Indian context [16], the determination of "true and first inventor" and "joint inventor" is of great significance.

A. Evolution of the Definition of Inventorship under the Patents Act, 1970

The Indian Patents and Designs Act, 1911, did not have a specific definition of "true and first inventor", but its application forms had provisions allowing "communicatees" to file as such, and implicitly recognizing "importers" as "true and first inventors." After independence, the Indian Government appointed Justice Rajagopala Ayyangar to make recommendations on the determination of inventorship. The Ayyangar Committee observed that the term "true and first inventor" means the actual originator of the invention in countries outside the UK and also certain Commonwealth nations. During the colonial period, the UK Government expanded this definition to include the "communicatee" and the "importer" of the invention from abroad, in addition to the originator.

According to the Ayyangar Committee, the "importer-inventor" concept permitted easy entry of foreign industries [17] into India, and hence it should be removed. In the definition of "true and first inventor" under Section 2(1)(y) of the Patents Act, 1970, the importer and the recipient of the invention disclosure were excluded as inventors. This amendment was a significant move in the history of Indian patent law. The same definition of the "true and first inventor" exists even now under Section 2(1)(y) of the Patents Act 1970. It has not been amended for over last five decades. Other than this exclusionary criterion, the Patents Act 1970 does not have any criteria for determining the "true and first inventor" or the "joint inventor".

B. Definition of Inventorship under the Patents Act, 1970 – An Analysis

Section 2(1)(y) of the Indian Patents Act, 1970, excludes "importers" and the "communicatees" of the invention from abroad from the definition of "true and first inventor". This section is insufficient for use during the complex process of joint invention creation because the contributions are beyond importation or communication of the invention. There is no other criteria for determining joint inventorship during collaborative research.

Section 6 of the Patents Act, 1970, states the eligibility of the "true and first inventor" to file a patent application in India. According to Section 6(2), the patent application can be filed by the "true and first inventor" or his "assignee". The patent application can also be filed by the legal representative of the "true and first inventor" or his "assignee". According to Section 7(3), the "true and first inventor" should be declared in the patent application. According to Section 28 of the Patents Act, 1970, the name of the inventor should be mentioned as it is in the patent application.

Under Section 51 of the Patents Act, 1970, the Controller can issue directions to joint patent owners. Section 52 has a provision to enable the grant of a patent to the "true and first inventor" from another claimant, if the claimant had fraudulently obtained the patent from the "true and first inventor". These sections do not have the criteria for determining "true and first inventor" or "joint inventor". The Patents Act mandates so many procedures for disclosing the names of inventors, but does not have any criteria for determining the "true and first inventor" or the "joint inventor". If incorrect people are mentioned as inventors, the patent applicants may face invalidation challenges. The process to evaluate and the correct inventorship and rectify the records will be inefficient because the Patents Act does not have the criteria itself.

C. Inventorship in India: Analysis of Judicial Precedents

In Manupatra database, the terms "inventorship" and "true and first inventor" were searched with an open date range. There were 11 judgments in the result. 6 judgments were related to "true and first inventor" and "joint inventor". Sections 51 and 52 of the Patents Act, 1970, were applied as additional search headers. The additional search result had 9 judgments, all related to the actions and rights of the "joint owner". None of them were on the criteria for determining the "true and first inventor" or the "joint inventor". The search using Section 52 as the header did not yield any judgments relating to inventorship. This shows that there is a scarcity of jurisprudence in India on the criteria for determining the "true and first inventor" or the "joint inventor" under the Indian Patents Act, 1970.

The Bombay High Court, in the case of Jagdish Gandhi and others v. Satish B. Vaidya and others, [18] held that a person cannot be an "owner" or an "inventor" of the patent if the idea covered in the patent already existed in the public domain. The dispute was between two partners working on an AIDS treatment formula. Jagdish was an Ayurvedic researcher who collaborated with Satish who was a pharmacologist to develop a medicinal formula for commercial use. Satish misrepresented as a medical doctor to third parties and deliberately cut off the communication between Jagdish and their manufacturing partner. Satish also falsely claimed that he was the original inventor of the AIDS formula. Jagdish discovered Satish's false claims and filed a lawsuit in the Bombay High Court. The Court didn't favour Jagdish because Jagdish did not have a patent for his formula. Also, since the formula were already

known from traditional Ayurvedic texts, the Court held that Jagdish cannot claim himself as the "inventor" or the "owner", since the invention was not novel. Although the Court established a threshold for inventorship by excluding pre-existing ideas, it did not define any inclusive criteria for identifying the "true and first inventor" or the "joint inventor".

The Bombay High Court, in the case of Darius Rutton Kavasmaneck v. Gharda Chemicals Limited, [19] suggested that the patent filed in the name of the managing director, who was also the "inventor", be assigned back to the company. Darius Kavasmaneck challenged the managing director of Gharda Chemicals for registering several patents in his personal name instead of filing in company's name. Darius was concerned that the managing director might engage in unauthorized transactions using these patents. This raised doubts on the fiduciary duties of the managing director and also about using the company resources in the patent application process. The Court found no evidence that the managing director having actually attempted to sell or transfer any of the patents in question. Darius could not establish the basis for his challenge. The Court noted that patents can be revoked if it was granted to a wrong person, and such action could jeopardise the company's rights. The Court suggested formally assigning the patents by the managing director back to the company. Since the managing director himself was the "inventor" and had no ill intention, the Court rectified the ownership by directing the execution of an assignment deed by the managing director to the company. The essence of this case is the equitable transfer of the patent rights to the invention developed during the managing director's course of employment. Although the Court acknowledged the inventorship, it did not provide a scrutiny of the criteria for the "true and first inventor" or the "joint inventor". This creates a problem in the clarity of articulation of the criteria for inventorship in the Indian patenting framework.

In Bata India Limited v. Vitaflex Mauch GMBH., [20] the Delhi High Court insisted a possession of a granted patent as a mandatory condition for the "true and first inventor" to sue. In this case, there was an infringement issue over a shoe insole technology between Bata India and the German company, Vitaflex. Vitaflex had a five-point insole design and enforced its intellectual property rights against Bata's six-point insole design. Vitaflex threatened Bata with legal action, for wrongfully using Vitafles's patented technology. Bata filed a declaratory suit to stop these threats, and pointed out that Vitaflex does not have a valid patent or trademark protection for their design. The Court examined the differences between the five-point and six-point designs and ruled that Vitaflex had no legitimate basis to threaten Bata with infringement proceedings since Vitaflex does not have valid patent or trademark for their design. This highlights the need for obtaining proper patent protection before enforcing the intellectual property rights against competitors. This decision by the Delhi High Court was more about the procedural aspects of granting a patent to the "true and first inventor", which can make him eligible to file an infringement suit. There is no discussion about the criteria for "true and first inventor' or the "joint inventor".

The Bombay High Court in the case of Hoechst v. Unichem Laboratories and Others [21] opined that when the scope of the invention under the dispute is already covered in the prior art, insufficiency of disclosure is an immaterial factor for the determination of inventorship. In this case, Hoechst and Burning were the owners of a patent for the manufacture of novel sulphonylureas and their salts, related compounds and the diabetes drug containing such compounds. Unichem Laboratories, which, according to Hoechst, infringed the patent by making, manufacturing and selling Uni-Tolbid Tablets or Tolbutamide made according to the patented invention. The Court held that Hoechst will be entitled to the normal relief available in an infringement action, viz., an injunction, as well as an order for the destruction of all the articles in the possession of Unichem Laboratories that infringed the patent. Unichem argued that the inventor of the patent was not the "true and first inventor", due to insufficient utility of the disclosed invention and an unexplained process in the patent for the compounds. In this case, the Bombay High Court held that the adequacy of disclosure is not a factor for determining inventorship when the idea lacked novelty. The focus of this case was not on "true and first inventor", but on patent enforcement and validity.

In S.C. Katoch v. Union of India (UOI) and Others, [22] the Himachal Pradesh High Court stated that the invention claimed should be of the inventor's own discovery to maintain the validity of the patent. S.C. Katoch who was the "inventor", sought royalty payments from the Indian government for the use of his patented pneumatic concrete spreader in the Beas project. Katoch's invention was about a single-cylinder design of a concrete spreader and its mounting technique for use in a tunnel boring machine. It had capabilities of handling 0 to 8 cubic meters of concrete. The government challenged the validity of the patent and Katoch's right to receive royalties, on the ground that the invention was just a workshop improvement. Katoch maintained that his patent had undergone a thorough evaluation by the

Kolkata Patent Office and was granted too. The Court found that the concrete spreader technology was already known in prior art, and held that Katoch's patent was invalid. In view of the Court, for the patent to be valid, the claimed subject matter must represent the inventor's original discovery and not an existing knowledge. This case is an example of a workshop modification of a pre-existing technology and how government entities can challenge the patent validity and royalty claims for such ideas. The case was largely about the intertwined nature of novelty and inventorship under the Indian patent framework, and not about determining the "true and first inventor" or the "joint inventor".

In V.B. Mohammed Ibrahim v. Alfred Schafraneck, [23] Mohammed had contributed money to Alfred to conduct experiments and then develop a new type of chair. This was a case of partnership dispute between V.B. Mohammed Ibrahim and Alfred Schafraneck that highlighted the distinction between financial contribution and inventorship. The two partners had collaborated to create a unique flower-design type chair. Alfred contributed his technical expertise in plywood craftsmanship while Mohammed provided the funds. Alfred had registered a patent in his name for the chair. After successful marketing, the partners had a rift and dissolved their business relationship. The Court found that Mohammed had provided only funding for Alfred's experiments, and did not contribute any technical knowledge or creative input to design the chair. The Court held that 'a financial support alone does not qualify a person as an "inventor". The patent rights belong to "those who actually devise or create the invention'. The Court clarified that "inventorship requires a genuine intellectual or technical contribution rather than mere monetary investment". It did not provide specific criteria for the nature and level of contribution required for becoming a "joint inventor". This still keeps the ambiguity in defining "joint inventor" under the Indian patent framework.

In M.C. Jayasingh v. Mishra Dhatu Nigam Limited (MIDHANI), [24] the Madras High Court clarified that the 'non-participation of a "joint inventor" or "co-owner" in an infringement suit does not render the suit invalid'. This was a patent dispute over the commercialization of titanium alloy prosthetics between prosthetic limb inventor M.C.Jayasingh and the government entity MIDHANI. Jayasingh had co-invented and co-owned a patent for prosthetic limbs made from specialized titanium alloy, supplying his products to the Adyar Cancer Institute. MIDHANI stopped supplying raw materials to Jayasingh, and started selling their own prosthetic limbs to Apollo Hospitals at one third costs. Jayasingh filed an infringement suit on MIDHANI. MIDHANI challenged the validity of Jayasingh's patent and argued that the suit was not valid due to the absence of his "joint inventor". The Court considered the public interest in life-saving medical devices and accessibility to a broader population. Also, the Court held that 'the non-joinder of a "joint inventor" or "co-owner" doesn't automatically invalidate an infringement suit'. This case acts as a precedent for maintainability of the patent infringement suit even when not all patent owners are parties to the litigation. The Court decided on the enforcement rights of the co-owners, assuming that "joint inventor" was already established. The Court did not provide guidelines for determining "true and first inventor" or "joint inventor" and hence the current definition in India remains inadequate.

In National Institute of Virology v. Mrs Vandana S. Bhide, [25] the Controller referred to the dictionary definitions of "invention" and "inventor". He emphasised that 'a person who conceived the "fundamental concept" is entitled as an inventor, and a person who merely conducted lab tests is not'. The patent was about "a process for preparing rotavirus immune serum conjugated to horseradish peroxidase for diagnostic ELISA kits". Mrs Bhide who was a lab technician in the institute, challenged the grant of patent to the institute, claiming she had made significant contributions to the invention. The Patent Office evaluated the nature of every contribution, and distinguished between a routine evaluation work and an inventive input. The Controller found that Mrs Bhide's contribution was limited to conducting laboratory tests and comparative studies under instruction from the institute. This didn't constitute inventive contribution. The ruling established that "inventors must make "intellectual contribution" to research outcomes, while those who merely follow instructions or perform routine experiments are not considered inventors". This case provided guidance that the "deviser" of the claimed elements is the "inventor", and intellectual contributors are entitled to "joint inventor". Since there are no statutory definitions for terms, such as the "deviser", the "intellectual contribution", the "fundamental concept" and "what is claimed" in the Indian Patents Act, 1970 these guiding principles do not carry the force of law. These terms are also interpreted differently across jurisdictions such as the UK and the USA. This case confirms a need for a clearer statutory definition and criteria for inventorship in the Indian context.

D. Inventorship in India: Analysis of Secondary Sources

In the commentaries and dictionaries on Indian patent law, the definition for inventorship was

searched. Also, research papers and books on intellectual property were referred to understand the criteria for inventorship.

The literature does not elaborate the criteria for inventorship, especially for the "joint inventors" in India. N.R. Subbaram (2007) [26] and Rao [27] refer to the definition of "true and first inventor" existing in the Patents Act, 1970. In the discussion of IP terminologies by Groves (2011) [28], the term "inventorship" is not present. Kennedy (2012) [29] discusses the complexities of conceiving the ideas, joint inventorship, and the qualifications for inventorship in the USA, but not in India. Haile (2000) [30] insists mainly on accurately determining the inventorship in biotechnology field. Ahuja (2009) [31] does not suggest any new definition. Radak (1994) [32] and Hauptan (1964) [33] discuss the impact when inventors are incorrectly identified. According to Dev (2020) [34], 'if two genuine inventors who are working independently and are unaware of each other's work, invent on the same concept, involving the same technical advancements, both the inventors are "true and first inventors"'.

Cohen (2013) [35] discusses the challenges in evaluating inventive contribution in a collaborative context. He emphasizes the critical need for a clear guideline. Xuan. et al (2011) [36] reiterate the socio-economic value of inventor identification in technology development and knowledge dissemination. The Economic and Political Weekly (2005) [37] points out the ambiguity in the Indian patent system, for determining inventorship. MacCord (2019) [38] highlights the business impact of accurately determining inventorship, because of its connection with the ownership rights.

In summary, there is no articulation of the definition of "inventor" or "joint inventor" in India, by the scholarly articles from Indian or foreign authors. The discussions are only limited to the definition available in the Patents Act, importance of accurate determination and the impact of misidentification.

3. INVENTORSHIP IN THE UK – AN OVERVIEW

In the UK, the inventorship is governed by the Patents Act 1977. There is no definition for inventorship in the Patents Rules 2007. The Manual of Patent Practice under the Patents Act 1977, has the definition and guidance. The specific criteria for determining inventorship in several contexts is available in the UK Courts' judgments.

A. Definition of Inventorship in the UK Patents Act

In the UK Patents Act 1977, inventor is defined under Section 7, as "the actual deviser of the invention". It has provisions for "the inventor's right to apply for and obtain a patent grant". In case of collaborative scenario, there is no criteria other than the "actual deviser" for determining inventorship.

B. Definition ofIinventorship in the UK Patent Rules

The UK Patents Rules 2007 has mechanisms for managing inventor information for correction, addition, and removal from the applications and granted patents. Rule 10(3) is used for filing of a statement concerning inventorship and the right to be granted a patent. It does not have criteria for identifying the inventorship.

C. Definition of Inventorship in the MPEP

The UK Manual of Patent Practice (MPEP) has a "two-stage approach" for determining inventorship. The first stage is "identifying the inventive concept present in the patent claims". The second stage is "identifying the individual who devised the inventive concept". The MPEP does not encourage an element-by-element analysis of the claims for determining inventorship. This is because the mere addition of a new feature to core inventive concept is not an inventive contribution. In an invention having a combination of pre-existing elements, the inventor is the person who conceived the combination.

The MPEP distinguishes between "enabling disclosure" and "devising the inventive concept." Enabling disclosure is the one that "allows a person skilled in the art to work the invention", whereas devising the inventive concept means "the essential information that makes the idea patentable". According to the MPEP, 'the "deviser" is the individual who contributed the essential elements of the invention'. The MPEP also suggests that "an actual deviser is not the one who merely puts forth a theoretical proposal without the requisite knowledge to implement the invention".

In summary, the MPEP has guidance on the conceptual contribution and the characteristic of a "deviser" in individual and collaborative scenarios as well.

D. Inventorship in the UK: Analysis of Judicial Precedents

In the UK Patent Office, when the decisions on "inventor ship" were searched, in its database, the results showed 398 decisions. The decisions were about adding or removing the inventors from the patent records. In majority of the decisions, the Comptroller relied on the declarations by the "inventor" or the "joint inventor" to amend the records. A search was also done in Find Case Law directory on the UK Court judgements, using the

keyword "inventorship". 18 cases were present in the results.

In BDI Holding versus Argent Energy, [39] BDI had designed a plant for extracting bio diesel from garbage, and was managing the plant on behalf of Argent Energy. Argent Energy was specialised in making biodiesel from fats, oils and lubes from sewers and oil traps. Argent Energy took over the management of the plant from BDI. Argent Energy filed patent applications that claimed a biodiesel composition having an ester profile comprising methyl octadecenoate and methyl cis-9-octadecanoate in advantageous proportions. Argent's composition had low density and could be made from sewer grease. BDI filed a suit before the UK IP Enterprise Court, for entitlement of rights on the patent. The Court applied two stage approach for determining the inventorship. The first stage was about "ascertaining where the inventive concept is", and second stage was about "identifying the actual deviser of the inventive concept". The Court held that "inventive concept needs to be understood from the perspective of a person skilled in the art". This approach also aligns well with the UK MPEP. This two-stage approach can be used in both sole inventorship and joint research scenarios, and is noteworthy. As compared to the limited guidance in the Indian patent system, the two-stage approach provides both clarity and predictability for determining joint inventorship.

In Actavis versus Eli Lilly, [40] the dispute was about the chemical composition of pemetrexed, which is used to treat cancer. Pemetrexed in its usual form, was causing side effects and was sometimes fatal to patients. Eli Lilly obtained a patent on a novel compound form of pemetrexed disodium for use together with vitamin B12 to minimise side effects. Actavis also sold the pemetrexed diacid for administering together with vitamin B12 to treat cancer. In Actavis's compound, there was a hydrogen ion instead of sodium ion. To determine infringement, the UK Supreme Court assessed whether the inventive concept is similar. The Court considered 'the inventive concept of the claim, same as the "inventive core" which solves the problem that the invention focuses on'. This case was pertaining to infringement determination because the inventive concept was copied. The Court clarified that 'the inventive concept is where a solution to the problem exists'. The emphasis on the "inventive core" offers more clarity than the emphasis on the "intellectual contribution" in the Indian framework. This is because the inventive core helps in identifying the "actual deviser," as it directs the inquiry towards those who conceived the specific solution. This confirms the need for a clarity in the Indian patent framework relating to the inventorship criteria.

In Duncan Riach & Anthony Brown versus Fulcrum, [41] Fulcrum had obtained a granted patent with David Townsend and Simon Sherratt mentioned as "inventors". The patent was relating to filtering of background noise from emergency sound sources, such as siren of ambulance. The "inventors" were working in Reading University and were involved in Fulcrum's collaborative project with the university at the time of invention creation. Duncan Riach & Anthony Brown, who also carried out their project in Reading University, filed a claim before the UK IPO to add their names as "inventors". The IPO evaluated whether Duncan Riach & Anthony Brown were the true "inventors" and whether the patent is valid. The IPO found that the patent application was made during the joint project between Reading University and Fulcrum, which started after Duncan Riach & Anthony Brown had left the University. On the basis of this evidence, the IPO found that the invention was arrived at independently by David Townsend and Simon Sherratt and dismissed their claim to be named as inventors. This case not only emphasises the condition to prove devising of the inventive concept for inclusion as "inventor", but also clarifies that "the prior employment by a person in a company, before the invention creation in that company cannot be considered as joint working to evaluate devising of inventive concept". The UK IPO's decision provides clarity on "what does not constitute joint inventorship" and the interpretation for "deviser". This contrasts with the lack of specific guidance in the Indian patenting framework, emphasizing the need for a clearer articulation of inventorship criteria.

In Cooke versus Watermist, [42] Cooke was a previous employee of Fireworks, which sourced fire protection equipments from Watermist. Cooke and Bridgman were friends, making prototypes of firehose reel for a fire protection equipment. In the UK patent granted to Watermist for the fire protection equipment, Bridgman was mentioned as an "inventor". Cooke filed a suit before the Chancery Division Court to add him as a "joint inventor", and claimed that it was Cooke who communicated the invention covered by the patent to Bridgman. The Court ruled that 'in order to add oneself as "inventor", the person to be added must prove that he contributed to the inventive concept claimed in the patent. If a person has to be removed from "joint inventor", other inventors must prove that the person to be removed did not contribute to the inventive concept claimed in the patent'. Bridgman was able to provide a statement on the circumstances about how he arrived at the inventive concept. On the contrary,

Cooke did not contribute to the creation of inventive concept of the patent. The Court clarified the role of each "joint inventor" with respect to the criteria of inventorship. The absence of burden-of-proof guidelines in India, highlights that the UK's has a better framework for resolving inventorship disputes based on contribution to the inventive concept.

In Coupling Technology Limited versus Coupling Solutions, [43] the dispute was about patents for coupling of pipes of varying lengths. Davidson who also owned Coupling Technology, was a "joint inventor" in all the patents. Davidson had also assigned one of the patents to Coupling Soultions. Davidson as a representative of Coupling Technology, claimed that "the assigned patent was invalid since Davidson had no authorization to assign to Coupling Solutions". In relation to non-assigned patents, although the claims had closeness to the claims of the assigned patent, the UK IPO found that there were additional inventive concepts, which were not contributed by Davidson. According to the IPO, "a person cannot be an inventor if a feature contributed by a him does not perform any useful function or makes the whole arrangement useless". In this case, the IPO observed that the additional inventive concepts were not of useless nature, and hence Coupling Solutions was entitled as "owner" of non-assigned patents jointly with Coupling Technology. In determining inventive concept and carrying out the proceedings, the IPO followed the best practice during the absence of Coupling Solutions, by treating the skeleton evidence submitted by Coupling Solutions as unchallenged before Coupling Technology. This "functionality-oriented approach" to inventorship determination in the UK has more clarity as compared to the broader principles in India, suggesting an area for improvement.

In Joseph Henry George Meider versus Edward Henry Whitfield, [44] the issue was relating to inventorship and ownership of a patent which they jointly owned for a plant feeding apparatus. Meider filed the case pleading that Whitfield be removed as "joint inventor" and also be removed as "joint owner", due to a soured relationship between them. Whitfield's counsel argued that Whitfield should continue as a "joint inventor" because not only Whitfield had shared ownership via the contract but also had contributed to dependent claims of the patent. The UK IPO also opined that "a shared ownership in the patent cannot not necessarily provide inventorship in the patent". IPO observed that "dependent claims claim subsidiary features and cannot amount to invention on their own, and hence contributing to the dependent claims could not be considered as amounting to inventorship. Since there was no evidence from Whitfield to prove that Whitfield contributed to the inventive concept, Meiter would be entitled for mention as sole inventor of the patent". The IPO ordered removal of Whitfield's name as "inventor" from the patent. The IPO ruled that due to existence of valid contract, both Meiter and Whitfield would continue as co-owners. In this case, because two persons had relationship, they included both their names at the time of filing the patent application, by overlooking the criteria for inventorship. The IPO clearly observed that "contribution to dependent claim cannot be considered as contribution to inventive concept". Although exclusionary in nature, this decision clarifies the level and nature of contributions to determine inventorship in the UK. This is in contrast to "deviser of what is claimed" principle used in the Indian context.

In the case of Wonderland Nursery Goods Company Limited, [45] Jian-Qun Li submitted that Guang-Hui Zhao was the only "inventor" of the patent. Also, Guang-Hui Zhao submitted a self-declaration confirming the same. The UK IPO according to rule 10(1), directed to mention Guang-Hui Zhao as the sole "inventor" in the published as well as the Granted patent. This case clarifies the effect of self-declaration of inventorship even after the grant of patent in the UK. This case showcases the need to understand how inventorship is managed through administrative processes. For India, this procedure can be an advantage in the absence of a clear definition for inventorship.

In the case of Lysanda Limited, [46] Alexandra Willard submitted a consent upon Lysanda Limited's request, for removing Emmanouil Hatiris as the "joint inventor" of the patent. Emmanouil Hatiris also in turn, consented for exclusion of his name as the "joint inventor". The UK IPO according to rule 10(1), directed exclusion of Emmanouil Hatiris as "joint inventor" in the published and the granted patent. This is a typical illustration of a self-declaration and a mutual consent by the "joint inventor" in determining the inventorship. The guidance from this case is not useful in India since India has a strong opposition mechanism that creates an opportunity for a deeper evaluation of who is the "true and first inventor".

In disputes involving Hannah Clark and Chris Millward, [47] in La Côtière Grand Large, Manuel Brandenberg and Eric Glorieux, [48] and in Martin R. H. Cane, [49] the UK IPO directed correction of the inventorship based on the declaration and mutual consent of the inventors. The UK IPO chose administrative efficiency in resolving the disputes instead of detailed assessment of the inventive contributions.

In IDA Limited versus University of Southampton, [50] a family of patents on methods and apparatus for trapping and killing insects such as cockroaches and house flies was involved in the dispute. IDA challenged the University to add IDA's employees as inventors in the patent. The patent had a first inventive concept in which the magnetic particles were creating slipping of insect's feet to a surface, and a second inventive concept, in which the magnetic particles carrying insecticide chemical were sticking to the insects. The England and Wales Court of Appeal (EWCA) observed that "since the first and the second inventive concepts demonstrate uncommon knowledge, and the impact enables patentability on their own, the contribution amounts to devising of the invention". The Court also observed that "anyone who contributed to the invention is not an inventor, but a person who is responsible for devising the inventive concept is the inventor". The Court also observed that "devising of the inventive concept is in-between two extremes, one extreme involving making vague ideas or building concrete wish list and the other extreme involving making a working embodiment for a proposal". The Court also found that IDA's employees need to be added as "inventors" since they originally communicated the inventive concept of using magnetic particles to the University. In this case, the Court not only provided the criteria for determining inventorship in case or more than one inventive concept claimed in the patent, but also the sets the guidance to understand what devising of the inventive concept means. This case a provides the meaning for "devising" by differentiating "devising" from "enabling". This approach by UK provides a detailed guidance as compared to the provisions in the Indian patenting system.

In Henry Brothers Limited versus the Ministry of Defence and the Northern Ireland Office, [51] Henry Brothers had obtained a patent that mainly claimed a blast resistant building whose external walls were constructed using preformed panels joined to each other by key-type joints. The key-type joint was claimed in the dependent claim, the as reshaped edges and fitting recesses of the preformed panels. Henry Brothers sued the Ministry of Defence for infringement, since a contractor of the Ministry was making such buildings. The ministry filed a revocation suit for the patent on the ground that the ministry's contractor was the only "inventor" and not the Henry Brothers. According to the Court of Appeal of England and Wales (Civil Division), "for determining joint inventorship, it is not correct to identify only the individual elements and its contributors. The individuals who contributed to the combination as whole should also be identified". In this case, the Court observed that "converting a useless collection of elements into a working combination is an invention while a feature that is peripheral in nature although necessary, is a non-patentable integer". In the example of inventorship determination where one feature is built on top of another feature, India evaluates the existence of novelty in the inventions whereas UK evaluates the combination as a whole.

In Pozzoli versus BDMO, [52] the patent was about a container for compact disks, whose height was less than twice its width. In storage state, the disks were partially overlapped and spaced apart, with offset axes for secure and easy access. This case was an appeal by Pozolli for an order on infringement by BDMO. The Court of Appeal of England and Wales (Civil Division) observed that "the appeal was to be allowed if the patent claimed a valid invention". The Court held that "to determine the scope of the invention, the inventive concept as claimed first needs to be identified, and measured as the difference over the closest prior art. The difference needs to be measured as either inventive or obvious from the angle of a person skilled in the art. The difference is the essence of the claim that is considered as inventive concept". In this case, the Court held that "the container height that was claimed as less than twice its width is known in the art. The claim of arranging disks as partially overlapped and spaced apart with offset axes for secure and easy access was not adding any inventiveness. Since the difference over the prior art was not inventive, the essence of the invention that constituted the inventive concept rendered the patent invalid". The Court's guidance to determine the inventive concept for evaluating the validity of the paten will also hold good for determining contribution to inventive concept for inventorship determination. While India also considers novelty and inventive step for patentability, this case, provides a clear articulation of linking inventorship directly to the "difference" over prior art, which can help refine the assessment of inventorship in the Indian context.

IV. Determination of Inventorship in India and the UK – A Comparative Study

A. An Overview

A detailed comparison of the inventorship criteria was done for both India and the UK from the patents act, patents rules, manuals, patent office decisions, and court judgments. The specific requirements for identifying the inventor, the conditions for joint inventorship, exclusions for "inventors" or "joint inventors", auxiliary principles and undefined criteria between India and the UK were understood. The study

was qualitative and systematic to micro-level insights for the determination of inventorship in India in comparison with the UK. The analysis was done point by point to obtain the similarities and the differences in the criteria for determining inventorship.

B. Criteria for determining a person as an inventor in India and the UK – An Analysis

Table 1 shows the criteria for determining a person as an inventor in India and the UK.

Table 1: Criteria for determining a person as an inventor in India and the UK

Criteria	India	UK
Criteria for determining a person as an "inventor"	• A person who is "not an importer of the invention into India" • A person who is "not a communicatee of the invention from abroad" • A person who is the "actual deviser of what is claimed" • A person who 'contributed to the "fundamental concept" of the invention'	• A person who is the "deviser" of the "inventive concept"

From Table 1, it can be seen that in both India and the UK, inventorship is determined based on the contribution to the conception of the invention. In India, the contribution should be to the "fundamental concept". The term "fundamental concept" is not defined in India. In India, according to the Controller's decision in National Institute of Virology case, 'a person who is the "deviser of what is claimed" is an inventor'. The term "deviser" is also not defined in India. There is also no clarity on whether the devising should be to the independent claim or to any dependent claim. It should be noted that a person contributing to the dependent claim via an add-on novel element entitles him to be "joint inventor" in the USA, whereas that is not the case in the UK. In the UK, the "deviser" is a person who contributed to the "inventive concept". The "inventive concept" is the "core of the invention that solves the problem disclosed in the patent". Also, it should be noted that India's Patents Act applies exclusionary criteria for inventorship. In contrast, the UK Patents Act applies inclusionary criteria for inventorship.

C. Criteria for determining a person as a "joint inventor" in India and the UK – An Analysis

Table 2 shows the criteria for determining a person as a "joint inventor" in India and the UK.

Table 2: Criteria for determining a person as a "joint inventor" in India and the UK

Criteria	India	UK
Criteria for determining a person as a "joint inventor"	• A person who made "a key contribution to the realization/conception of the end process or product" • A person who made 'an "intellectual contribution" in arriving at the ultimate results of research work'	• A person who "contributed to the inventive concept"

From Table 2, it is clear that both in India and the UK, an "intellectual contribution" is required to become a "joint inventor". In UK a "joint inventor" is "a person who contributed to the inventive concept". In the UK, "contribution to the inventive concept means adding a feature to that enhances the functionality and utility of the invention". In India, there are no such function-oriented approach and also the terms like "key contribution" and "intellectual contribution" are not defined.

D. Criteria for determining who is not an inventor/who is not a "joint inventor" in India and the UK – An Analysis

Table 3 shows the criteria for determining who is not an inventor or who is not a "joint inventor" in India and the UK.

Table 3: Criteria for determining who is not an "inventor"/who is not a "joint inventor" in India and the UK

Criteria	India	UK
Criteria for determining who is not an inventor/who is not a "joint inventor"	• A person whose "idea is already in the public domain" • A person who "made a financial contribution to create the invention" • A person who "worked as a lab assistant" • A person who "works as a hired hand"	• A person "contributing to the dependent claims cannot be considered as an inventor because dependent claims claim subsidiary features and cannot amount to invention on their own" • A person who "contributes to a feature that does not perform any useful function or renders the whole arrangement useless" • A person who "contributes to a peripheral feature of the invention"

From Table 3, it is clear that India excludes prior public knowledge and financial contribution for

inventorship. India also applies role-based approach to exclude routine roles, such as "lab assistants" or "hired hands" as "joint inventors". In contrast, the UK does not consider contribution to dependent claims, features without useful function, or peripheral aspects to the invention for inventorship. UK insists for a direct contribution to the core of the invention for entitlement of inventorship status.

E. Other guiding principles for determining who is an inventor/who is a "joint inventor" in India and the UK – An Analysis

In the UK, piecemeal analysis of contributions to individual claim elements are discouraged. Instead, it emphasizes "a contribution to the combination of the features of the invention as a whole". Even for entitlement as a "joint inventor", "devising the inventive concept" is necessary. In India, there is no clarity for determination of inventorship when multiple people contribute to different elements of a patent claim. India also does not have the "devising of the inventive concept" for inventorship determination.

V. Conclusion and Recommendations

In India, "true and first inventor" excludes "a person who is an importer or a communicatee of the invention from abroad." Key terms relating to inventorship are not defined in the Patents Act, 1970. While guidance is available from the decisions of the Indian courts and the Patent Office, the definition of inventor remains ambiguous and does not have a clear, measurable criteria available in the UK. The current definition does not suit modern, emerging, and multidisciplinary context.

In India, as evident from National Institute of Virology v. Mrs Vandana S. Bhide, the inventor is the "actual deviser of what is claimed" or 'a person who contributed to the "fundamental concept" of the invention'. There is no definition for "deviser" or "fundamental concept" in the Indian patenting framework. This creates ambiguity about whether the deviser is a contributor to the inventive concept or merely to any claim of the patent. There are no legal definitions in India for the terms "inventive concept", "fundamental concept", "joint inventor", "intellectual contribution", "joint research", and "introducing a new idea". These terms remain unquantified and unqualified, and are therefore insufficient, which can lead to inconsistent application by stakeholders.

In the UK, inventor is defined under Section 7(3) of the Patents Act 1977, as the "actual deviser." In *BDI Holding v Argent Energy,* a two-stage methodology was introduced for determining the "actual deviser". The first stage involved determining the "inventive concept", and the second stage involved determining its "actual deviser." In *Actavis v Eli Lilly* (2017), the "inventive concept" was equated to the "heart of the invention" or the "inventive core" which solves the underlying problem. Therefore, a "deviser" contributes to the core concept of the invention. This clarifies that the term "fundamental concept" in India is the same as the "inventive concept" in the UK, and that the "deviser" is one who contributed to the "fundamental concept" as in the UK.

To identify a "joint inventor", India follows a role-based approach, and excludes "lab assistants" and "hired hands". In contrast, the UK follows a merit-based approach, that applies a "function-oriented" measurement to evaluate the "intellectual contribution". According to the principles used in the UK, 'for a person to be added as a "joint inventor" because he added a feature to the inventive concept, the feature must perform a useful function that enhances the utility of the invention as claimed'.

Based on the comparative analysis, India can learn key lessons from the UK's practice to improve its own framework.

For determining "true and first inventorship", India should adopt a definition based on the "inventive concept", since the in the UK, "inventive concept" is considered as the "heart" or the "core" of the invention. By adopting the "inventive concept", India can avoid the ambiguous term "fundamental concept". The contribution to "inventive concept" should be incorporated under Sec 2(1)(y) of the Patents Act, 1970.

For joint inventorship determination, India should consider adopting a "functionality-oriented" approach, since in the UK, "a feature added to the inventive concept, must perform a useful function that enhances the utility of the invention as claimed". By adopting the "functionality-oriented" approach, a clear, measurable standard, which currently is absent, for determining joint inventorship in collaborative and multidisciplinary research environments, becomes possible.

Based on the comparative analysis, policy and reforms are recommended to strengthen India's patenting framework.

Defining key terms: Section 2(1)(y) of India's Patents Act, 1970, should be amended. The terms "deviser" and "fundamental concept" should be included for defining the "true and first inventor". The terms "intellectual contribution" and "joint research" should be applied for defining the "joint inventor". The scope of the definitions should align with the "inventive concept" criteria and "functionality-oriented" approach used in the UK. This will ensure legal certainty and predictability in determination of inventorship in India.

Using a relative weight test: In joint research, every "intellectual contribution" should be given a weight. The functionality or the utility of the invention should

be evaluated based on the relative weights of the contributions. A guideline should be made to help the inventors assign the weights and use them for evaluation. This approach is similar to the UK, and this would help determine the "actual deviser" in complex, multi-party collaborations where contributions are not equal.

Clarifying the status of ancillary roles: The "lab assistants" and "hired hands" are not considered as "joint inventors" in India. This shows the Indian patenting framework is highly restrictive. The Patents Act, 1970, should provide clarity by using UK's "merit-based" approach. This will ensure that those who perform ancillary roles can be inventors if they contribute to the inventive concept.

Promote the Awareness: Indian Patent Office should launch educational programs for inventors, startup and corporate entities, patent agents, and legal professionals. This will ensure proactively clarifying the inventorship criteria and ensure future disputes and ensure compliance are mitigated.

These recommendations, when incorporated, are more likely to bring changes that will enhance clarity to ensure legal certainty, predictability to mitigate risks, bolster India's patent system to foster innovation, and guarantee equitable recognition of "intellectual contribution" crucial for India's technological progress.

Declaration of AI use

During the preparation of this work, we used Gemini 2.5 Flash and Gauss in order to respectively improve the readability and language of the manuscript and conversion of references style. After using this tool, we reviewed and edited the content as needed and take(s) full responsibility for the content of the published article.

Author(s) Biography:

Mr. Lakshminarayanan Ramachandran, PhD Scholar in School of Law, CHRIST (Deemed to be University) is specialist in devising Intellectual Property strategy as key innovation tool for transforming innovation culture in R&D. He has expertise in institutionalizing patentable technology creation, enabling conversion of patent-backed technology proposals into end-to-end advanced product development and progressively shift the R&D mindset towards research, intrapreneurship and breakthrough innovation for future sustainability and success of business. He is a Registered Patent Agent in India, and enables systematic invention development, patent prosecution & protection towards building a global portfolio of high-quality patents that suit commercialisation, licensing and business value creation in a corporate technology environment. Dr. Avishek Chakraborty, Associate Professor at School of Law, CHRIST (Deemed to be University), Bengaluru has specialised in Intellectual Property Rights. His doctoral research focused on music piracy in film music industry in India. He has introduced and teaches specialised courses on various aspects of intellectual property rights for under-graduate law students. He has conducted training and orientation programs on industry practices and registration of intellectual property rights in India for engineering students. As a coordinator of Intellectual Property Rights Committee, he has been instrumental in preparing and publishing newsletter, 'Intellectualis' with the objective of disseminating knowledge about contemporary issues on intellectual property rights. He has authored and presented research papers in his areas of specialisation extensively.

Conflict of interest statement

The authors hereby declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Inventorship in Law of Patents: a Comparative Study of the Legal Framework between India and the UK

REFERENCES

[1] Dhoot, V. (2025). The role of globalisation in shaping India's economic growth and development. *International Journal of Creative Research Thoughts, 13*(1), 1. https://www.ijcrt.org

[2] Ministry of Information & Broadcasting. (2025, October 2). *PM Modi's Aatmanirbhar Bharat vision has made India self-reliant in defence, space, electronics & many other key areas of social development: Vice President*. Press Information Bureau. https://www.pib.gov.in/

[3] Juneja, N., et al. (2025). Impact of dimensions of financial literacy and business innovation on the performance of women entrepreneurs. *International Journal of Work Innovation, 6*(1), 71. https://doi.org/10.1504/IJWI.2025.144324

[4] Department of Science & Technology. (n.d.). *Technology development and transfer*. https://dst.gov.in/technology-development-and-transfer

[5] Startup India. (n.d.). *About startup India initiative*. https://www.startupindia.gov.in/content/sih/en/about-startup-india-initiative.html

[6] Kaur, H., et al. (2025). Cultural and religious values steering the digital future? *International Journal of Technology Transfer and Commercialisation, 21*(3), 191. https://doi.org/10.1504/IJTTC.2025.146540

[7] IMPACT Research and Development Foundation. (2025). *The manufacturing mission (2025–26): Furthering "Make in India"*. IMPRI. https://www.impriindia.com/insights/manufacturing-mission-2025/
[8] UPICon. (n.d.). *Industry 4.0 and digital transformation in India*. https://upicon.in/research/industry-40-and-digital-transformation
[9] Konnur, M., & Chubachi, M. (2025). The impact of foreign direct investment on India's sectoral and regional economic growth: An analytical study. *Asian Journal of Agricultural Extension Economics and Sociology, 43*(3), 110.
[10] The Economic Times. (2022, December 27). *Startups will attract significant foreign direct investments in 2023: DPIIT secretary Anurag Jain*. https://economictimes.indiatimes.com/tech/startups/
[11] India Brand Equity Foundation. (2023, May). *Information technology India, top IT companies in India*. https://www.ibef.org/industry/information-technology-india
[12] Inductus GCC. (n.d.). *The role of industry-academia alliance in sustainable GCC growth in India*. https://inductusgcc.com/the-role-of-industry-academia-alliance-in-sustainable-gcc-growth-in-india/
[13] Press Information Bureau. (n.d.). *India witnesses 44% surge in IP filings over five years, driven by key policy reforms and digitization*. https://www.pib.gov.in/PressReleasePage.aspx?PRID=2146928
[14] PTI. (2025). *India will be among top 10 countries on global innovation index in next 3 years: Amit Shah*. *The Economic Times*. https://economictimes.indiatimes.com/news/politics-and-nation/
[15] Gates, B. (2024, February 25). *India's innovations are still changing the world*. Gates Notes. https://www.gatesnotes.com/India-is-changing-the-world-with-innovation
[16] Rao, A. C., & Gaur, J. (2025). Comparative assessment of green growth indicators for China and India. *World Review of Entrepreneurship, Management and Sustainable Development, 21*(1), 75. https://doi.org/10.1504/WREMSD.2025.143639
[17] Ayyangar, N. R. (1959). Report on the revision of the patents law (p. 58). Government of India. https://ipindia.gov.in/writereaddata/Portal/Images/pdf/1959-_Justice_N_R_Ayyangar_committee_report.pdf
[18] Jagdish Gandhi v. Satish B. Vaidya, (1999) 4 Bom CR 424; 1999 SCC OnLine Bom 355.
[19] Darius Rutton Kavasmaneck v. Gharda Chemicals Ltd., (2015) 5 Bom CR 162; 2015 SCC OnLine Bom 4813.
[20] Bata India Limited v. Vitaflex Mauch GmbH, (2015) 222 DLT 498; 2015 SCC OnLine Del 11505.
[21] Farbwerke Hoechst Aktiengesellschaft Vormals Meister Lucius & Bruning v. Unichem Laboratories, (1968) 76 Bom LR 130; 1968 SCC OnLine Bom 118.
[22] S. C. Katoch v. Union of India, (1979) 8 ILR HP 445.
[23] V. B. Mahomed Ibrahim v. Alfred Schafranek, AIR 1960 Mys 173; 1958 SCC OnLine Kar 50.
[24] M. C. Jayasingh v. Mishra Dhatu Nigam Limited, AIR 2014 (NOC 485) 170; 2014 SCC OnLine Mad 163.
[25] National Institute of Virology v. Vandana S. Bhide (Controller of Patents, Indian Patent Office), Patent No. 187163 (581/BOM/1999) (Feb. 24, 2009).
[26] Subbaram, N. R. (2007). *Patent law: Practices and procedures* (2nd ed.). LexisNexis.
[27] Rao, M. B., & Guru, M. (2010). *Patent law in India*. Kluwer Law International BV.
[28] Groves, P. (2011). *A dictionary of intellectual property law*. Edward Elgar Publishing.
[29] Kennedy, J., Watkins, W. H., & Ball, E. N. (2012). *How to invent and protect your invention: A guide to patents for scientists and engineers*. The University of Akron.
[30] Haile, L. A. (2000). Workshop on intellectual property rights, inventorship and the significance of record keeping. *In Vitro Cellular & Developmental Biology – Plant, 36*, 7.
[31] Ahuja, V. (2009). *Intellectual property rights in India*. LexisNexis Butterworths Wadhwa India.
[32] Radack, D. (1994). Getting inventorship right the first time. *JOM, 46*(6), 16.
[33] Hauptan, G. (1964). Joint inventorship of computers. *Communications of the ACM, 7*(10), 579.
[34] Dev, R. (2020). Applying for patent in India. *Patent Attorney*. https://patentbusinesslawyer.com/applying-for-patent-in-india/
[35] Ross, C. E. (2013). Clear as mud: An empirical analysis of the developing law of joint inventorship in the Federal Circuit. *Berkeley Technology Law Journal, 28*(2), 383.
[36] Liu, X., Kaza, S., Zhang, P., & Chen, H. (2011). Determining inventor status and its effect on knowledge diffusion: A study on nanotechnology literature from China, Russia, and India. *Journal of the American Society for Information Science and Technology, 62*(6), 1166.
[37] A Correspondent. (2005). A confusing patent law for India. *Economic and Political Weekly, 40*(16), 1576.
[38] MacCord, A. (2019). Inventorship is an important consideration. *IEEE Power Electronics Magazine, 6*(3), 55.
[39] BDI Holding GmbH v. Argent Energy Ltd., [2019] EWHC IPEC 765 (IPEC).

[40] Actavis UK Ltd and Others v. Eli Lilly and Company, [2017] UKSC 48.
[41] Duncan Riach & Anthony Brown v. Fulcrum Systems Ltd, [2014] UKIPO O/139/14.
[42] Cooke v. Watermist Ltd, [2014] EWHC 125 (Pat).
[43] Coupling Technology Limited v. Coupling Solutions LLC, [2013] UKIPO O/342/13.
[44] Joseph Henry George Meider v. Edward Henry Whitfield, [2010] UKIPO O/171/10.
[45] Wonderland Nurserygoods Company Limited, Jian-Qun Li and Guang-Hui Zhao, [2014] UKIPO O/332/14.
[46] Lysanda Limited, Alexandra Willard and Emmanouil Hatiris, [2015] UKIPO O/008/15.
[47] Hannah Clark and Chris Millward, [2014] UKIPO O/213/14.
[48] La Côtière Grand Large, Manuel Brandenberg and Eric Glorieux, [2014] UKIPO O/067/14.
[49] Martin R. H. Cane, [2014] UKIPO O/314/14.
[50] IDA Limited v. University of Southampton, [2006] EWCA Civ 145.
[51] Henry Brothers (Magherafelt) Ltd v. Ministry of Defence, (1997) RPC 442 (CA).
[52] Pozzoli SpA v. BDMO SA, [2007] EWCA Civ 588.