

CERTIFICATE

This is to certify that the doctoral thesis title, **“The Need for Transfer of Technology in the Era of Globalisation and Growing Intellectual Property Rights Concerns”** submitted by **Anuja Misra** (Enrolment No. **NLU/JODH/Ph.D/2019/66**), research scholar of National Law University Jodhpur, is in full requirement of the award of the Degree of Doctor of Philosophy in Law. This is an independent research and an original work of investigation carried out by the research scholar under my guidance and supervision. No part of this work has been carried out earlier anywhere else and has not been submitted for the award of any other degree/diploma of the University or any other Institution.

Date:

Place:

Dr. Manoj Kumar Singh
Research Supervisor
Associate Professor of Law
National Law University, Jodhpur

DECLARATION

I, Anuja Misra, hereby declare that this doctoral thesis title, “**The Need for Transfer of Technology in the Era of Globalisation and Growing Intellectual Property Rights Concerns**” researched and submitted to the National Law University Jodhpur in fulfilment of the requirement for the award of Doctoral Degree in Law, under the guidance and supervision of **Dr. Manoj Kumar Singh** is an original, bona-fide and legitimate work and has been pursued for an academic interest. This work or any type thereof has not been submitted to either this University or any other University for the award of a degree or another academic qualification. The thesis has been evaluated through “Turnitin” Software, the report of which has been attached with this work.

Date:

Anuja Misra

Place: Jodhpur

Research Scholar

ACKNOWLEDGEMENT

Words fall short as I begin to express my sincere gratitude towards the esteemed institution, National Law University Jodhpur, for its continued efforts in nurturing the researcher within me in the accomplishment of this doctoral thesis. As this journey comes to an end, I would like to extend my sincere thanks to a few people without whom this endeavor would never have seen the light of the day. I thank Hon'ble Vice Chancellor Prof. (Dr.) Harpreet Kaur, for her encouragement and remarkable academic and leadership skills that have inspired me to move ahead with this research. Prof. (Dr.) I.P. Massey, respected Dean, Faculty of Law, who remains to be a pillar of strength and motivation for all. My heartfelt gratitude to my research supervisor Dr. Manoj Kumar Singh, Associate Professor, Faculty of Law for his discipline, valuable guidance and support and who has with patience and dedication, motivated me to do better at each and every step of this research journey. I would also like to thank Prof. (Dr.) Poonam Pradhan Saxena whose supervision and persistence has helped bring out the best in me.

My research and interest in the area of Intellectual Property Rights would not have been the same without the assistance from my teacher Dr. Gargi Chakrabarti who instilled and helped build the thirst for knowledge in me and helped me maneuver through the tricky concepts of technology transfer. A special thanks to Dr. Ragini P. Khubalkar, my senior and faculty colleague whose enthusiasm and devotion to intellectual property rights has been extremely inspiring to me.

This study and the mention of people who I would like to thank would not be complete without my son who has been the biggest motivation for me in this journey in all aspects and who helped build confidence in me that I can justify my work with utmost sincerity and commitment. I cannot forget to mention my husband, who has lifted me up in times of utter distress when the pressures of work seemed insurmountable and my mother who till date continues to believe in my dreams and be there at my side, always.

Lastly, I thank everyone who has morally supported and encouraged me in this tiring yet rewarding journey so I could most satisfactorily give shape to my work.

TABLE OF CASES

1. Aamir Raza Husain v. Cinevistaas Ltd., 2003 (27) PTC 425 (Bom) (DB)
2. American Securit Company v. Shatterproof Glass Corporation, 268 F.2d 769 (3rd Cir. 1959)
3. Aronson v. Quick Point Pencil Company, 440 US 257 (1979)
4. Bayer Corporation v. Natco Pharma Ltd., Order No. 45/2013 (Intellectual Property Appellate Board, Chennai)
5. Bishwanath Prasad Radhey Shyam v. Hindustan Metal Industries, (1979) 2 SCC 511
6. Cadbury India Limited v. Neeraj Food Products, 2007 (35) PTC 95 (Del)
7. Commissioner of Customs Vs. M/s. Parasampuria Synthetics Ltd., 2001(133) ELT 9 (SC).
8. Diamond v. Diehr, 450 US 175, 209 USPQ 97, 1981.
9. Eastern Book Company v. D.B. Modak, (2008) 1 SCC 1
10. European Union v. Union of India, Delhi High Court, WP(C)-IPD 5/2022 and 6/2022, May 31, 2022.
11. F. Hoffmann La Roche Ltd. v. Cipla Ltd., 2008 (37) PTC 71 (Del)
12. Ferid Allani v. Union of India, OA/17/2020/PT/DEL.
13. General Tire & Rubber Company v. Firestone Tyre & Rubber Company Ltd., [1975] FSR 273
14. John Richard Brady v. Chemical Process Equipment Pvt. Ltd., AIR 1987 Del. 372.
15. Kimble v. Marvel Entertainment, 576 US 29 (2015)
16. Lee Pharma v. AstraZeneca, Appellate Board [C.L.A 1 of 2015].
17. M/s L.D. Malhotra Industries v. M/s Ropi Industries, PTC (Suppl) (2) 564 (Del)
18. Spin-Deck Inc. v. Fab-Con Inc., 677 F.2d 1237 (8th Cir. 1982).
19. Sulamangalam R. Jayalakshmi v. Meta Musicals Chennai, 2000 PTC 681, 694
20. The Chancellor, Masters & Scholars of the University of Oxford v. Rameshwari Photocopy Services, CS (OS) No. 2439 of 2012 (Del) (October 6, 2016)
21. Tracer Research Corporation v. National Environmental Services Company, 422 F.3d 1292 (9th Cir.)
22. Transparent Wrap Mach Corp v. Stokes & Smith Co., 329 US 637 (1947)
23. United States v. Singer Mfg. Co., 374 U.S. 174 (1963).

TABLE OF ABBREVIATIONS

ADR	Alternate Dispute Resolution
AI	Artificial Intelligence
ASEAN	Association of South East Asian Nations
BOOT	Built Own Operate Transfer
BOT	Built Operate Transfer
CERN	European Organization for Nuclear Research
CGPDTM	Controller General of Patents Designs and Trademarks
CIPH	Commission on Intellectual Property Innovation and Public Health
CRI	Computer Related Invention
CSIR	Council of Scientific & Industrial Research
DAE	Department of Atomic Energy
DBT	Department of Biotechnolog
DOD	Department of Ocean Development
DOE	Department of Electronics
DOS	Department of Space
DOS	Department of Space
DRDO	Defence Research and Development Organisation
DSS	Dispute Settlement System
DST	Department of Science and Technology
DST	Department of Science and Technology

FDI	Foreign Direct Investment
FIPB	Foreign Investment Promotion Board
FTA	Free Trade Agreement
GATT	General Agreement on Tariffs and Trade
GOI	Government of India
ICAR	Indian Council of Agricultural Research
ICCPR	International Covenant on Civil and Political Rights
ICESCR	International Covenant on Economic Social and Cultural Rights
ICMR	Indian Council of Medical Research
IHP	International Hydrological Programme
IMF	International Monetary Fund
INPI	Instituto Nacional da Propriedade Industrial (Brazilian Patent and Trademark Office)
IP	Intellectual Property
IPCC	Intergovernmental Panel on Climate Change
IPR	Intellectual Property Rights
ISRO	Indian Space Research Organization
ITO	International Trade Organisation
IUCN	International Union for Conservation of Nature
JV	Joint Venture
LDCs	Least Developed Countries
MAT	Mutually Agreed Terms

MIT	Massachusetts Institute of Technology
MNC	Multi National Corporation
MNRE	Ministry of New and Renewable Energy
MoEF	Ministry of Environment, Forests and Climate Change of India
MTA	Material Transfer Agreements
NAFTA	North American Free Trade Agreement
NASA	National Aeronautics and Space Administration
NDA	Non-disclosure Agreement
NGO	Non-governmental Organization
NIS	National Innovation Systems
NRDC	National Research Development Corporation
OECD	Organisation for Economic and Co-operative Development
PAB	Project Approval Board
PCT	Patent Cooperation Treaty
PTD	Potential Technological Distance
SBIR	Small Business Innovation Research
SDGs	Sustainable Development Goals
STEM	Science Technology Engineering Mathematics
STI	Science, Technology and Innovation
STL	Successful Technology Licensing
STP	Science and Technology Park
TFP	Total Factor Productivity

TISC	Technology and Innovation Support Centres
TNCs	Trans National Corporations
TRIPS	Trade Related Aspects of Intellectual Property Rights
TRLs	Technology Readiness Levels
TTO	Technology Transfer Office
TTPP	Technology Transfer Promotion Programme
UDBHR	Universal Declaration on Bioethics and Human Rights
UDHR	Universal Declaration of Human Rights
UNCTAD	United Nations Conference on Trade and Development
UNESCO	United Nations Educational Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
US	United States
WGTTT	Working Group on Trade and Transfer of Technology
WHO	World Health Organization
WIPO	World Intellectual Property Organization
WTO	World Trade Organization