

CONTENTS

# Conference of the INTERNATIONAL JOURNAL OF ARTS AND SCIENCES

2014, VOLUME 07, NUMBER 02

Role of Women in Renewable Energy Resource Management Work Done by Members of Gram Pnchyat in Khandala Taluka District Satara Maharashtra, India - A case Study Saroj Pandharbale	1–3
The Role of "GATEKEEPERS" in the System of Prevention of Money Laundering and Terrorist Financing - Facing the Fourth Directive Sonja Cindori	5–5
The Tools of Soft Warin International Relations Javad Nikmoeen and Saeed Forghany	7–7
DNA Binding and Cleavage Activities of Synthesized Boron Complexes Alparslan K. Devrim, Mert Sudagidan, Ali Arslantas and Dursun A. Köse	9_9
How Transformational Teachers are as Leaders in the Context of Bangladeshi Higher Education Institutions Saad Md Maroof Hossain and Kashfah Khan Chowdhury	11–16
On the Research of Linguistic World-Image Asymmetry in Word-Formation K. Sh. Abrahamyan and N. R. Nazaretyan	17–19
Institutional Quality and Trust in Banks in Latin America Steven Gunawan, Eduard Jan Bomhoff and Grace Hooi Yean Lee	21 26
Modeling of Hydrological Drought Monitoring Alireza Nikbakht Shahbazi and Alireza Pilpayeh	27–39
A Comparison of the Top Three Travel Blogs in Hong Kong Joey Wu	41–43
One or Two English for Specific Purposes Course (S)? Belinda Ho	45–46
The Using of Sulphur Hexafluoride (SF <sub>6</sub> ) as a Cover Gas for Protection of Molten Magnesium Alloys Meltem Demirci, Ali Serdar Vanli, Anil Akdogan and Huseyin Sonmez	47–53
Traces of Popular Culture in Cinema Rengin Ozan	55–56

ISSN 1943-6114

# ii Contents

Parameter Estimation of Reservoir Water Quality Model using Genetic Algorithm Jae Heon Cho and Sang Mok Bae	57–57
Genotyping in Pharmacothreapy H. S. Suzen	59–60
Swarm Based Fuzzy Clustering for Preformance Evaluation Sylvia Encheva	61–61
Developing Spoken Academic Skills on Conference Posters - A New Academic and Research Genre Aleksandra Łuczak	63–75
Assessment of Established and New Cleaning Technologies in Wastewater Treatment Plants Using Biomarkers in Fish Diana Maier and Rita Triebskorn	77–80
Short-Term ESL Study Abroad Experiences: Do They Reduce Japanese Students' Difficulty in Oral Communication in English? Yoko Sato	81–97
Sustainability and Architectural Education in the University of Jos- Nigeria Allu Evelyn Lami Ashelo	99–106
Christian-Muslim Encounters in the 17 <sup>th</sup> Century Georgia: Royal Documents Eter Edisherashvili	107–113
Legal Protection of Intellectual Property Rights in Developing Countries - Case Study - Republic of Macedonia Biljana Conevska and Nada Doneva	115–122
Information System for Inclusion of Women With Normal Pregnancy in Gymnastics Program Irina Nesheva and Emilia Pavlova	123–129
Characteristics of the Service Industry Seen From the Standpoint of Internal Marketing Tatsuya Kimura	131–131
Glocal Higher Education in Saudi Arabia. Developments and Challenges Annalisa Pavan and Abdulrahman Alfahadi	133–137
Self- Esteem of Female Victims of Facial Burn Injuries Asima Faisal and Nasreen Hussain	139–149
Policy, Perception and Pedagogy: Aboriginal Students' Experiences in Northern Ontario (Canada) Lorenzo Cherubini	151–153
A Comparison of Academic Partnership Coach-Based Graduate Students in 5 Week Cohorts to Traditional Graduate Students Ronda Mintz-Binder	155–155
Judicial Independence of Bangladesh Mohammed Shahjalal	157–157

Public-Private Partnership in Nigerian Tertiary Education Funding: Case for an Alternative Approach Ojobor Lebechukwu Mercy	159–159
Multi-Objective Optimization of Anaerobic Digestion Models for Biogas Production Josiah Adeyemo and Abimbola M. Enitan	161–169
Resolution of Multiobjective Water Supply Problems in the Vanderkloof Dam Josiah Adeyemo and Oluwatosin Olofintoye	171–180
The Politics of Race and Gender in the Texts of Jennie Carter and Maria Luisa Garza Patricia Ortiz-Owens	181–185
Workshop on the Construction of Communities in Social Media Sites Bee Bee Sng	187–189
Random Point Processes - An Interdisciplinary Approach K. S. S. Iyer, Vijayalakshmi Chetlapalli and Sunil Patil	191–193
Feature Film Discourse as Linguistic Subject Rakhima Zhumaliyeva	195–199
Visionary Company Attributes and Firm Performance: A Study of Nigerian SMES Joe Duke II	201–201
Perceptions of Women in the Balance of Power in Turkey Seher Cesur-Kiliçaslan and Toprak Isik (Erdal Kiliçaslan)	203–208
Common Grammatical Errors (Lexical Analysis) Othman Mustafa Al-Jaber	209–209
A Qualitative Study of Democratic Workplace Frameworks Vicki Lee	211–211
Cultures Through Song: A Korean Journey: The Process and Outcome of a Student/Faculty Collaborative Project Teri A. Herron and Jung Won Shin	213–215
Inclusive Growth in India - A Study on Financial Inclusion of Rural Household in Srikakulam District, Andhra Pradesh P. Veni	217–219
Is There an Environmental Kuznets Curve for Bangladesh? Fazle Rabbi, SM Zobaidul Kabir and Delwar Akbar	221–231
Teacher Image in Literary Qualified Student Novels Aysegul Celepoglu and Nuray Kisa	233–233
Employing Turkish Teachers in Primary Education Schools-Elementary Schools(Grades 1-8) in Turkey and the Problems Encountered in Turkish Textbooks and Suggestions Rasim Özyürek	235–237

#### iv Contents

The Analysis of the Teaching Preferences and Perceptions of Students in the First and Fourth Grade and Studying the Department of Classroom Teaching About Learning Funda Uysal and Sultan Demircan	239–239
Determinining the Relationship between Teacher's Perception About Organizational Justice and the Job Satisfaction by Meta-Analysis Nuray Kisa and Tarık Başar	241–241
Extending an Interpreter Program Written in C++ to Recognize Repetition Structures in a Programming Language Octavian Nicolio	243–250
Political Interest, Nature of Public Expenditure and Economic Growth: Evidences from India Joydeb Sasmal and Ritwik Sasmal	251–260
Improving Mental Health Using Computerized Cognitive Behavioral Therapy (CCBT): The Importance of Addressing Users' Perceptions and Acceptance of This Methodology Eliane Du , Ethel Quayle and Hamish Macleod	261–261
A Preliminary Study on the Acceptance of Assistive Devices Among Elderly in Dementia Day Care Centre in Malaysia Nur Balqis Ahmad Safawi, Asiah Abdul Rahim and Ismawi Hj. Zen	263–273
Tracing New Impacts in Education and Teaching in Changing Global Scenario Manisha A. Gaikwad	275–278
A Framework on Islamic Spirituality Development and Ethical Workplace Ismail Abd Rahman, Junaidah Hashim and Faridah Abdul Latif	279–282
Investigation of Climatic and Visual Comfort Levels in Historic Elementary School Building in Kocaeli-Turkey Neslihan Türkmenoğlu Bayraktar and Mohammed S. G. Abusamhadana	283–284
Collaboration of and Academia and Industry Partners for Stem Mentoring Susan Chaisson Schueller	285–285
Promoting Scientific and Cultural Literacy Through Dance and Science: Lessons From a Project in Brazil R. Silveira João, O. Maia Cristina, M. R. Vasconcelos Sonia and Lannes Denise	287–287
A Study on Internal Brand Management by Leading Banks in Navi Mumbai Area, India Nivedita Shreyans Sable	289–291
Country of Origin (COO) Influence on Services of Foreign Versus Domestic Banks: Consumers' Perceptions of Service Quality in the UAE Mohammad Naim Chaker	293–302
Within the Framework of Prosecutors and Judges: Auditing the Duties of Turkish High Council of Judges and Prosecutors Ovunc Ozkan	303–303

A Test of the Effectiveness of the Undiluted Bleach Method in Defleshing Human Remains Michael Ruiz	305–309
Prediction Support in Healthcare Information Systems With Case Studies Ahmad Shahin, Walid Moudani and Fadi Chakik	311–311
Adaptation of Weighted Kaplan-Meier Method to Time-Dependent ROC Curves: A Real Application on Pancreas Cancer Data Deniz Sigirli, Ilker Ercan, Ozkan Balcin and Ekrem Kaya	313–314
Examining Type I Error Rate According to Number of Landmarks with Regards to Isotropic and Anisotropic Models for Two-Sample Tests in Statistical Shape Analysis Ilker Ercan and Gokhan Ocakoglu	315–315
Knowledge of Veterinarians About Biostatistics: A Worldwide Survey Gokhan Ocakoglu, Ilker Ercan, Guven Ozkaya, Ender Uzabac, Fatma Ezgi Can and Mehmet Onur Kaya	317–317
Biostatistics Education in Medical Faculty Guven Ozkaya, Deniz Sigirli, Ilker Ercan and M. Onur Kaya	319–319
Examining The Tests for Comparing Survival Curves With Right Censored Data Pinar Gunel Karadeniz and Ilker Ercan	321–321
Learning Barriers in the Comprehension of Literary Texts Among ESL Students: A Case Study From Malaysian Schools Abdul Ghani Abu and Ahmad Zainuri Loap Ahmad	323–331
How Many Tourists Are Needed in a Tourism Destination? Simone Marsiglio	333–337
Georgian Catholics in the Ottoman and Russian Empires: Aspects of Ethnic and Religious Identity Natia Natsvlishvili	339–340
Using Quality Criteria for Evaluating Students' Perceptions of Geogebra in Mathematics Education: Results and Implications Said Hadjerrouit	341–345
An Investigation Into Students' Perceptions of Multimedia Production as Part of Project Based Learning Into Drug Problem Solution Fisik Sean Buakanok and Pongwat Fongkanta	347–360
A Brief Core Values Scale B. W. Chua and K. C. Yeo	361–361
Genealogy and the Genre of the Postmodern Family Saga Zsuzsanna Koós	363–366
Biological Sequence Alignment Using Artificial Immune System Based Algorithm Yılmaz Atay and Halife Kodaz	367–367
Estimating Energy Demand of Turkey Using Bat Algorithm Model Hüseyin Hakli and Harun Uğuz	369–369

#### vi Contents

GSA Implementation for Solving Sudoku Puzzles ÜrünTunal and Erkan Ulker	371–371
Effect of Mental Training On M.S Patients' Dart Throwperformance Hamid Foroughipour	373–379
Consumers' Technology Readiness and the Adoption of ATMs in Zimbabwe Richard Shambare	381–391
Author index	393–394

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All correspondence should be mailed to the Associate Editor: Dr. Joseph Bonnici, Vance Hall, 4th Floor, Central Connecticut State University, 1615 Stanley Street, PO Box 4010, New Britain, CT 06050-4010, USA.

The manuscripts contained in this volume were double blind refereed.



# LEGAL PROTECTION OF INTELLECTUAL PROPERTY RIGHTS IN DEVELOPING COUNTRIES - CASE STUDY - REPUBLIC OF MACEDONIA

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This paper aims to present the legal protection of intellectual property rights emphasizing the industrial property rights provided in national legislations in developing countries, taking Republic of Macedonia, a representative of these countries, as an example. The paper also makes a comparison of the measures of protection offered by the developed countries legislations and of those in developing countries, through the example of the Republic of Macedonia. The protection and realization of industrial property rights should contribute to the promotion of technological innovation and dissemination of technology, to the mutual benefit of producers and consumers, as well as to the overall development of the country. The paper presents a brief overview of the role of agents in the system of protection and for this purpose we used secondary research (desk research). This research is made with data obtained from the relevant literature in this area, business and government sources, including court reports, government strategies and reports of other state agencies as part of the chain of protection of intellectual property rights. Throughout the research, we use the method of analysis, synthesis and comparison of systems of protection offered by developing and developed countries.

Keywords: Intellectual property rights, Legal protection, Measures of protection, Developing countries.

# Introduction

This paper presents a literature review and consideration of the legal mechanisms through which the protection of the intellectual property rights is enabled in developing countries. This protection involves measures to prevent violence, preventing of possible damages and it allows compensation for damage. Legal protection in the legal system of R. Macedonia as well as in other countries of the Western Balkans, being developing countries, is established in such a manner that it is divided into civil - legal, criminal - legal and administrative - legal protection. This points to the concomitant legal protection of various types instigated by a violation of a right, both by the state authorities and by the courts.

# **Civil - Legal Protection**

Let us first look at civil - legal protection that is provided in the Republic of Macedonia. According to the applicable regulations of the Republic of Macedonia, the person who shall violate any right established by

#### 116 Legal Protection of Intellectual Property Rights in Developing Countries ...

law, is liable for damages under general rules for compensation (pecuniary and non-pecuniary damage) in accordance with the Law on Obligations. The request for compensation may be filed together or after the request for establishing a violation of law. Any *unauthorized use, disposal, restriction, imitation, association, harassment of rights* which is contrary to the provisions of the Law on Industrial Property shall be considered as infringement of patent, industrial design, trademark, topography of integrated circuit, designation of origin and geographical indication of the product.<sup>1</sup>

Beside compensation a person whose rights have been violated, in a lawsuit may request the court to order the person who violated his/her rights:

- 1. To refrain from further violations
- 2. To seize and destroy products manufactured or marketed that infringe the rights
- 3. To require the submission of documents and information from the person who has violated the right and
- 4. To announce the verdict determining the violation in the public media at the expense of the defendant.

In this part of the protection, the legislation of the Republic of Macedonia, as well as the laws of the neighboring Balkan countries that have a similar solution on this issue, is largely on a level or harmonized with the countries of the European Union, i.e. the developed countries.

What occurs as a problem in the Republic of Macedonia, serving as an example in other developing countries as well, is the absence and lack of judicial practice and consistent application of sanctions in case of violation of intellectual property. This can be seen from the data obtained that say that the courts in the Republic of Macedonia in 2013 acted only in about 24 cases of infringement of intellectual property. This shows that the number of completed cases or procedures in cases of infringement of intellectual property does not correspond to the factual situation of violations, while the penalties that were brought are usually very low and do not correspond to the preventive purpose. What is detected as a problem is the non-existence of a separate system of monitoring of such cases, as well as the lack of specialization of judges in this area, which is one of the conditions for ensuring efficiency and effectiveness of the procedures. Another problem occurring in developing countries, considered on the example of the Republic of Macedonia, is the difficulty to access data from courts that do not make a statistical classification of processed cases and do not divide the processed cases into respective areas. For that reason researchers are faced with difficulties in getting relevant data, locating problems and creating strategies to improve the situation. The absence of judicial practice contributes to high levels of piracy and counterfeiting which, in developing countries including the Republic of Macedonia, is around 60%, in contrast to the developed countries and the EU countries where piracy and counterfeiting is approximately 30%.

However, in the past few years a positive trend in these figures can be noticed as a result of greater accessibility of information and of raising population's awareness about the importance of intellectual property rights. In terms of raising awareness among the population about the importance of intellectual property rights, the Government of the Republic of Macedonia (taken in this paper as a case study) in the last 2-3 years strongly supports the implementation of the adopted Strategy for Intellectual Property of R.M., which was adopted in 2009.<sup>2</sup> One of the measures taken by the state is the opening of internet portals through the Ministry of Education, which will facilitate the creation of a system for the development and implementation of an information system to record the innovative achievements of researchers and innovators in the state, thus achieving the main purpose - developing awareness of the importance of intellectual property.

<sup>&</sup>lt;sup>1</sup>Law on Industrial Property. Official Gazette of Republic of Macedonia, no. 21/09, 24/11.

<sup>&</sup>lt;sup>2</sup> Intellectual Property Strategy of the Republic of Macedonia. Skopje, R. Macedonia, 2009.

#### **Criminal - Legal Protection**

Considering the fact that the forms of legal protection of industrial property rights are not mutually exclusive on the occasion of violation of law, apart from civil - legal protection criminal - legal measures and resources to responsible parties may be applied, if a violation is found of some of the intellectual property rights. In order to get closer to the laws of modern states which within themselves incorporate well thought out and implemented provisions for the protection of intellectual property rights, criminal legislation of the Republic of Macedonia does not miss monitoring of such national legislation and it protects rights against violation in several articles of the Criminal Code of R. Macedonia.<sup>3</sup> The industrial property rights defined in accordance with the Law on Industrial Property are regulated in the Criminal Code of RM with several provisions of the law - "Crimes against public finances, payment and commerce." The use and trade of these rights is protected in Articles 285 and 286 of the Criminal Code of the Republic of Macedonia.

Article 285 of the Criminal Code, incorporated in the text as "infringement of industrial property and unauthorized use of someone else's company" is formulated through several paragraphs and provides for three types of offenses.<sup>4</sup> The first type of offense is the infringement of another's protected trademark, protected industrial design, protected designation of origin and geographical indications in a way that he who, contrary to regulations on industrial property, with the intent to deceive the buyers or users of services violates another's protected trademark, protected industrial design, protected designation of origin and geographical indications, shall be punished with imprisonment of at least three years. The second type of offense is unauthorized manufacture, placing on the market, importing, exporting, offering for sale or storage of products that are subject to the protection of industrial property rights, so he who, with the intent to deceive buyers, makes this offense in its form the law shall be punished with the same sentence as the first form of the act. The last form of the offense governed by the provisions of paragraph 3 of the same article - unauthorized use of another company or unauthorized entry into another company's insignia of industrial property rights, is punishable by fine or imprisonment up to three years, as one of the forms of unfair competition. Subject to the criminal offense under Article 286 of the Criminal Code is the right of authorship of patent, protected topography of integrated circuit (IC) or intellectual property (copyright) of software, which in technical terms or technological terms means creations with applicative value in the economy and in other social spheres.<sup>5</sup> Namely, based in the provision of Article 286 -"violation of registered or protected invention and topography of integrated circuits", this offense is manifested in two forms. The first form of the offense of committing an act is unauthorized filing a patent application or a false indication or indications in the application of the inventor, or making available to the public the essence of the invention before it is published in the manner prescribed by law, so that he who intends to damage another person or obtain other unlawful property gain makes the offense, shall be punished by a fine or imprisonment up to three years.<sup>6</sup> The second form of the offense, regulated in paragraph 2, is the action of committing concerning unauthorized manufacture, placing on the market, importing, exporting, offering for sale, storage or use of a product or process that is subject to protection by patent or unauthorized use, reproduction, importing, exporting or distributing of protected topography of integrated circuit or software. For the existence of this type it is necessary that there is intent to damage another person or to gain unlawful proceeds. For this offense also the law provides a penalty equal to the

<sup>&</sup>lt;sup>3</sup> Criminal Code. Official Gazette of Republic of Macedonia, no. 37/96, 80/99, 4/02, 43/03, 19/04, 81/05, 60/06, 73/06, 87/07, 7/08, 139/08, 114/09, 51/11, 135/11, 185/11, 142/2012, 166/12, 55/13, 82/13, 14/14, 27/14, 28/14. <sup>4</sup> ibid

<sup>&</sup>lt;sup>5</sup> ibid

<sup>&</sup>lt;sup>6</sup>Tupancheski, Nikola. "Criminal liability of entities with special attention to the crimes of article 157 of the Criminal Code of the Republic of Macedonia (Violation of copyright and related rights) and article 286 of the Criminal Code of the Republic of Macedonia (Unauthorized use of another's invention or software)", in Copyright and related rights - domestic and international theory and practice. Skopje: Faculty of Law "Iustinianus Primus", 2007, p. 545.

#### 118 Legal Protection of Intellectual Property Rights in Developing Countries ...

one that sanctions the enforcement agent of the first form of the offense grounded in the provisions of Article 286.

A novelty in the Criminal Code of the Republic of Macedonia of 2004 is a direct intervention in the provisions of Article 285 and Article 286, under which the offense, if committed by a legal person, shall be punished with a fine, which is a legislative move that highlights and reinforces criminal - legal protection of inventions, i.e. the totality of industrial property rights, and in these terms is also the expanding of the circle of perpetrators of the aforesaid offenses. The legal possibility of applying the institution of criminal liability of legal persons for offenses "infringement of industrial property rights and unauthorized use of another firm" (Art. 285 of the Criminal Code of the Republic of Macedonia) and "violation of registered or protected invention and topography of integrated circuits" (Art. 286 of the Criminal Code of the Republic of Macedonia), increases the weight and seriousness of the offense if it is committed by a company or firm, which derives from the fact that their illegal activity is characterized by a high degree of organization, premeditation and simultaneously represents an attack on another object of protection - fair competition. As a comparative study penal codes of neighboring developing countries of the Western Balkans were analyzed, and it was found that for such offenses the same or similar penalties are provided consisting of monetary fines or imprisonment.<sup>7</sup>

### **Administrative - Legal Protection**

Administrative - legal protection is manifested through surveillance and criminal proceedings. Such protection of intellectual property rights in the Republic of Macedonia is in accordance with the provisions of TRIPS and the EU Directive on enforcement of intellectual property rights.<sup>8</sup> This in turn means that in this respect the legislation of the Republic of Macedonia is harmonized with the EU. In R. Macedonia the authorities that supervise the implementation of the Law on Industrial Property are the State Market Inspectorate, Customs Administration, Ministry of Interior and the Public Prosecutor. When exercising supervision, if there is reasonable suspicion of an offense, authorized inspectors can seize copies of works or objects or funds used or allocated for the felony or misdemeanor as an interim measure, for which they shall issue a certificate with an accurate description and quantity of the seized items. They can also impose a temporary ban on performing business activity, and they can bring misdemeanor proceedings. This way the repetition of offenses relating to intellectual property is actually prevented.

Administrative capacity to coordinate the activities covered by misdemeanor and criminal proceedings has been strengthened with the establishment of the Coordinating Body for Industrial Property (CBIP) of the Government. Such a coordinating body coordinates field activities of the MoI, the State Market Inspectorate and the Public Revenue, and the destruction of confiscated goods. Furthermore, in collaboration with government and NGOs, and international organizations such as OSCE, CBIP organizes educational workshops and roundtables on various aspects of the protection of intellectual property.

To illustrate the scope of activities, here follows the data for 2012 <sup>9</sup>:

- 28 coordinated actions conducted across citie;
- 151 involved legal entities ;
- 3 involved individuals;
- 54 criminal charges brought by the Ministry of Interior;
- 9 misdemeanor charges filed by SMI;

<sup>&</sup>lt;sup>7</sup>Criminal Code of the Republic of Serbia. Official Gazette of RS, no. 85/2005, 88/2005, 107/2005, 72/2009, 111/2009, 121/2012, 104/2013; Criminal Code of the Republic of Montenegro. Official Gazette, no. 70/2003; Croatian Criminal Code. Official Gazette, no. 125/11, 144/12.

<sup>&</sup>lt;sup>8</sup>Dabovik - Anastasovska, Jadranka, and Valentin Pepeljugoski. Intellectual property right. Skopje: Faculty of Law "Iustinianus Primus", 2008.

<sup>&</sup>lt;sup>9</sup> http://www.ippo.gov.mk

- 8 issued payment orders for the payment of fines by SMI;
- 8 trainings conducted by SMI;
- 5 payment orders for the payment of fines for misdemeanor by the Ministry of Culture.

The following were confiscated:

- 359 cases that violated copyright and related rights:
  - 84 computers for unlicensed software
  - 221 receivers
  - 3 cards for decoding
  - 50 books
  - 1 computer for illegal copying of books
- 839 cases that violated the rights of industrial property.

CBIP also organizes the destruction of confiscated goods seized in coordinated actions by authorized persons in charge of relevant departments, for which valid and enforceable misdemeanor and criminal decisions were made by competent courts. Typically, pirated items (CD / DVD), alcohol and cigarettes are destroyed.

Hence it follows that R. Macedonia as a representative of developing countries treated in this paper, records a positive trend of strengthening preventive action by competent authorities if there is violation of intellectual property. There has been an increase in the overall implementation of legislation for the protection of the rights and for sanctioning the providers of such acts. However, what is still missing in the Republic of Macedonia, and by its example to other developing countries likewise, is the lack and non-realization of the administrative and technical requirements for the implementation of prevention and sanction to the very end, such as: deciding on rules and procedures, institutional investment in IT systems, vehicles for transporting seized goods, establishment of separate organizational units that would deal with these issues etc.

Finally we would like to mention the State Institute for the Protection of Industrial Property, which is actually a registrar in which the recognition and registration of industrial property rights is recorded. The State Office of Industrial Property is responsible for activities related to the acquisition and protection of intellectual property. The procedure for the protection of industrial property rights is a specific administrative procedure that requires special knowledge of the area and interested persons may engage agents in the proceedings. In R. Macedonia the Law on Industrial Property distinguishes between domestic and foreign legal entities. Namely, in the proceedings before the Office and the state administration, foreign legal entities and individuals realize their rights through a representative who is a domestic legal entity or an individual registered for advocacy in the field of industrial property. Domestic parties can exercise their rights in person or through a legal representative, but they may also engage a representative from industrial property. This stems from the Paris Convention for the Protection of Industrial Property, For that purpose, in accordance with the Law and Regulations, the Office organizes an exam for agents to protect industrial property rights, which are further authorized to make entries into the Office. R. Macedonia is a signatory of the Patent Cooperation Treaty and the so-called Extension to European Patent, so the protection of patent rights as one of the intellectual properties can be obtained by:<sup>10</sup> 1. Patent application to the Office for the Protection of Industrial Property (SIPO) of the Republic of Macedonia. 2. By way of an international patent application to the global organization for protection of Industrial Property (WIPO). 3. Application to the European Patent Organisation (EPO). In the same way the procedure for registration of industrial property rights and development is regulated in neighboring countries such as Serbia, Montenegro, Bosnia and Herzegovina and Croatia as a new member of the EU. Realizing the situation statistically according to the scope of the applications for industrial design, trademark and patent we came to the following data available at the State Office of Industrial Property:

The scope of patent applications from domestic and foreign persons, as well as the number of resolved applications is illustrated by the following statistics taken from SIPO for the period 2009-2013:

Year	Domestic	Foreign	Total	Registered
2009	150	378	528	524
2010	34	406	440	328
2011	39	383	422	334
2012	27	337	364	406
2013	37	368	405	392
Sum	487	3456	3943	3027

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Despite the undeniable fluctuations in the dynamics of patent applications a continuous stream of both domestic claimants and of interest of foreign companies is evident, which creates a significant number of decisions. For the same period, the reported statistics for applied trademarks to SIPO is as follows:

Table 2.

Year	Domestic	Foreign	Total	Registered
2009	618	637	1255	979
2010	1276	690	1966	1822
2011	898	398	1296	1433
2012	944	537	1481	783
2013	917	474	1391	1616
Sum	6516	5215	11731	9378

Applications for industrial design to SIPO:

Year	Domestic	Foreign	Total	Registered
2009	39	992	1031	1016
2010	21	1033	1054	1064
2011	28	746	774	759
2012	25	735	760	746
2013	45	742	803	758
Sum	278	6242	6490	7154

Table 3.

From the analyzed data we can conclude that from year to year there is a difference in the interest of domestic and foreign entities for the protection of intellectual property, and all this comes from the improvement of the business climate in the country and from taking concrete steps to improve it.

#### Conclusion

This paper aims to show what the legal protection of intellectual property in developing countries is like through the example of the Republic of Macedonia. The overall research leads to the conclusion that the legislation of the Republic of Macedonia and the other developing countries of the Balkans is largely harmonized with that of the European Union. Our country has ratified most international treaties in the field of intellectual property, such as TRIPS agreements, the Hague Agreement Concerning the International Registration of samples and models, Locarno Treaty, the Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks, the Paris Convention for the Protection of Industrial Property, Patent Cooperation Treaty, GAAT and others. Developing countries analyzed through the example of Macedonia have realized in recent years that maintaining competitiveness is a key factor in the development of the state. In this respect, a positive trend of declining of the large percentage of piracy and counterfeiting has been observed as a result of better access to information and raising awareness of the importance of intellectual property. Furthermore, what appears as a benefit in developing countries are the measures taken to strengthen the institutional and administrative capacity of the country working on this issue, and the most important thing is the beginning of organizing public debates, workshops, and support centers for local innovators; by means of these measures the developing countries are trying to cope with counterfeiters.

# References

- 1. Adolf, H. "Trade aspects of intellectual property rights and developing countries". The Developing Economies XXXIX -1, 2001;
- 2. Arup, C., and Caenegem, W.V. Intellectual Property Policy Reform. Edward Elgar Publishing Limited, 2009;
- 3. Dabovik Anastasovska, Jadranka, and Neda Zdraveva. "Intellectual Property Strategy of the Republic of Macedonia consolidated text 2009-2012". Skopje, Government of Republic of Macedonia, 2009;
- 4. Dabovik Anastasovska, Jadranka, Neda Zdraveva, and Nenand Gavrilovik. Fundamentals of Intellectual Property Law. Skopje: Faculty of Law "Iustinianus Primus", 2011;
- 5. Dabovik Anastasovska, Jadranka, and Valentin Pepeljugoski. Intellectual property right. Skopje: Faculty of Law "Iustinianus Primus", 2008;
- 6. Deere, C. "The Implementation Game The TRIPS Agreement and the Global Politics of Intellectual Property Reform in Developing Countries", Oxford: Oxford University Press, 2009;
- 7. Gould, D.M., and W.C.Gruben. "The role of intellectual property rights in economic growth". Journal of Development Economics, 1995;
- Kambovski, Vlado. Commentary on the Criminal Code of the Republic of Macedonia. Skopje: Klub Matica, 2011;
- Maricik, Momir. "Protection of Copyright and Related Rights, General for criminal legal responsibility", in Copyright and related rights - domestic and international theory and practice. Skopje: Faculty of Law "Iustinianus Primus", 2007;
- 10. Prajm, T. European Intellectual Property Right. Skopje: Prosvetno delo AD, 2000;
- Tupancheski, Nikola. "Criminal liability of entities with special attention to the crimes of article 157 of the Criminal Code of the Republic of Macedonia (Violation of copyright and related rights) and article 286 of the Criminal Code of the Republic of Macedonia (Unauthorized use of another's invention or software)", in Copyright and related rights - domestic and international theory and practice. Skopje: Faculty of Law "Iustinianus Primus", 2007;
- 12. Criminal Code. Official Gazette of Republic of Macedonia, no. 37/96, 80/99, 4/02, 43/03, 19/04, 81/05, 60/06, 73/06, 87/07, 7/08, 139/08, 114/09, 51/11, 135/11, 185/11, 142/2012,166/12, 55/13, 82/13, 14/14, 27/14, 28/14;
- 13. Criminal Code of the Republic of Serbia. Official Gazette of RS, no. 85/2005, 88/2005, 107/2005, 72/2009, 111/2009, 121/2012, 104/2013;
- 14. Criminal Code of the Republic of Montenegro. Official Gazette, no. 70/2003;
- 15. Croatian Criminal Code. Official Gazette, no. 125/11, 144/12;
- 16. Intellectual Property Strategy of the Republic of Macedonia. Skopje, 2009;

# 122 Legal Protection of Intellectual Property Rights in Developing Countries ...

- 17. Law on Copyright and Related Rights. Official Gazette of Republic of Macedonia, no. 115/10, 140/10, 51/11;
- 18. Law on Industrial Property. Official Gazette of Republic of Macedonia, no. 21/09, 24/11;
- 19. Law on Obligations. Official Gazette of Republic of Macedonia, no. 18/01, 4/02, 5/03, 84/08, 81/09, 161/09;
- 20. The Secrets of Intellectual Property A guide for small and medium sized exporters. Skopje: International Trade Centre, 2011;
- 21. http://www.ippo.gov.mk, (08.02.2014)
- 22. http://www.slvesnik.com.mk
- 23. http://www.wipo.int/portal
- 24. http://www.sec.gov.mk