

SUMMARY

of scientific works submitted for participation in competition for taking the Academic Position „Professor“ in the scientific specialty „Social policy and political science“, professional field 3.4 Social activities,
of the candidate Associate Professor Dr.Sc. Toshko Hristov Petrov

I. TEXTBOOKS AND STUDY GUIDES

1. **Petrov, T., Theory of the Electoral Systems** – a textbook - ISBN – 978-954-20-0366-3, Publisher – Technical University of Varna, Varna, 2006, 163 pages

The edition presents systematically, comparatively and in details the most common electoral systems that are used in the political practice of different countries. Each one of them is presented fairly detailed as a concept, logic and above all as a system of specific calculation procedures, by means of which the respective election results are determined and the conversion of the votes cast into mandates won. The main advantages of each electoral system as well as the disadvantages that appear in the process of its application are highlighted. An opinion is expressed that in the world practice there is no perfect type of an electoral system, and that the question of choosing a specific electoral system is primarily a matter of certain political preferences, arguments and agreement between the political forces, and not of a rational choice of something that is better than others.

2. **Petrov, T. Social policy and social activities** – a course of lectures – Publisher “E-litera”, Varna, ISBN - 978-954-339-043-4, 2008, 83 pages

The purpose of the study aid is to familiarise the students with the content of the social policy, its origin, development, with the basic methods and means used for influencing and regulating the social and distributive relationships. The content and the features of the various sectoral social policies are examined – an income policy and the poverty reduction; limiting the unemployment and promoting the employment; the social security and support, the pension system, the housing policy; the health insurance system, as well as the corporate social policy.

3. **Petrov, T., Handbook of Social Policy** – a study guide – Project BG051PO001-4.3.04-0014 „New electronic forms of education at Technical University of Varna“, Technical University of Varna, 2014, ISBN 978-954-20-0612-1, 125 pages

The study material included in the electronic study guide covers the main problems of social policy - the essence and main tools of the social policy, the main sectoral policies, the company social policy, health care policy, etc. A special attention is given to the regulation of the distributive relationships, the incomes policy and poverty reduction, on the development of protective social networks and the pension system. The electronic guide is intended for electronic learning environment, therefore a set of didactic materials - tests, case studies and tasks - have been developed along with the lecture material.

II. MONOGRAPHS AND STUDIES

1. **Petrov, T., Voting Technology** – a monograph - ISBN-978-619-241-201-2, Publishing House “Steno”, Varna, 2022, 139 pages

In this monographic work the theoretical foundations of the electoral behavior of Bulgarian citizens are developed. This is a scientific problem that is generally absent from our scientific literature. An attempt has been made to theoretically understanding of the social communities formed as a result of the citizens participation in the processes of personal construction of the main structures of political power, mostly by voting for certain political actors. A universal methodological approach has been successfully selected and applied in the study of the voting behavior of Bulgarian citizens, originating from the classical German sociology, which leads to identification of such a specific social community as the electoral community. The specifics of the process of the formation of political preferences among Bulgarian voters have been studied and analyzed, and on this basis its important characteristic features are stated.

A special attention is paid to the various scales through which the Bulgarian voters predominantly form their political preferences towards political actors. In order to be able to formulate the relevant findings and conclusions data from conducted sociological surveys have been used, which in terms of content are able to collect the necessary empirical information to help the researchers to reveal not only what can be established on the surface of the political process, (e.g. results of certain elections), but also the mechanisms that lead to the corresponding result, studied both at an individual and at a community level.

Based on the information from a research-type sociological survey, a mathematical model has been developed, with the help of which medium-term forecasts can be made. In this way, it could be used in the applied political research and, in this sense, to help in solving some specific tasks in this area, including the compilation of scientifically based medium-term forecasts of the electoral behavior of the Bulgarian voters. The complexity and the high-probability nature of this scientific problem make it a real challenge for researchers. The results presented in this monographic work are able to generate new ideas and solutions in the field of the study of the electoral behavior of the Bulgarian voters, as well as voters from other democratic countries.

III. ARTICLES AND SCIENTIFIC REPORTS

1. **Petrov, T., Modelling the processes in social communities. A mathematical model for the allocation of efforts in small social groups.** (co-authored with M. Tonev) - Collection of reports from a national theoretical conference "Methodological problems of the application of mathematical modelling and computational techniques in the social sciences and social practice", Volume 1, 1987, V. Tarnovo, p. 143.

The report examines the possibilities of using a mathematical model to study the distribution of efforts in relation to several activities in a certain small social group, under the influence of approval (encouragement) or disapproval (sanctioning) expressed in relation to the engagement of a certain member of the group with a particular activity by its other members. By using this

model it is possible to predict in advance the distribution of efforts in the group between certain activities, and also its optimization.

- 2. Petrov, T., Structure of the evaluations, perceptions and attitudes of the students from the specialties preparing personnel for the Navy to the educational and training process at the Higher Naval School "N.Y.Vaptsarov" - Jubilee Collection "The Armed Forces in a Democratic Society", Publisher "IMO St. George the Victorious", Sofia, 1999, p. 250-259.**

The article presents the results of a sociological survey conducted at the beginning of 1998 through a representative sample of students from all specialties at the Higher Naval School "N.Vaptsarov" - Varna in order to establish their opinion regarding various aspects of their training process. The distribution of the respondents' perceptions, evaluations and attitudes is grouped and analyzed in the following directions: general evaluation of the educational process; attitude towards the various elements of the educational process; attitude towards the results of the educational process; attitude towards the organization of the educational process; participation of the students in the management of the academy.

- 3. Petrov, T., Possibilities for the application of quantitative methods in political decision making - Collection of scientific works of a Scientific conference with international participation ' 2000, P.Volov Higher Military School of Artillery and Air-defence, Shumen, (ISBN 954-9681-01-7), Part I, p. 128-132.**

The report develops the conditions under which expert methods can be used to make political decisions. The de Bordeaux, Kondeurseis and Copland methods for group selection of the most preferred alternative are presented. The content is presented and the possibilities of applying the method for discrete multi-criteria decision-making by matrix dichotomy are analyzed.

- 4. Petrov, T., Expert methods in political analysis - Collection of scientific works of a Scientific conference with international participation ' 2000, P.Volov Higher Military School of Artillery and Air-defence, Shumen (ISBN 954-9681-01-7), Part I, p. 133-137.**

The report presents some of the characteristics defining the application of quantitative methods for political decision-making. A mathematical model is proposed for the optimal solution of a certain type of multi-criteria problems, where a choice is made between a finite number of available alternatives. A method for searching for the so-called an acceptable solution when solving a certain type of multicriteria problem is also presented.

- 5. Petrov, T., Sir Robert Filmer's Patriarchal Theory of Power - Notices of the Union of Scientists, "Humanities" series, (ISSN 1310-6376), 2000, Varna, p. 56-60.**

The report presents the main aspects of the concepts of power of the not particularly well-known English political theorist Sir Robert Filmer. His ideas about the origin of political power - from the "ethereal gift" presented to Adam by God - are analyzed. Thus, according to Filmer, all power absolute and indivisible (*patria potestas*) belongs to the monarchs who are heirs of Adam.

This authority, like that of the father, is exercised over the subjects strictly and justly, and absolute monarchy becomes not only the best form of government, but also the only one by which the state can be governed.

- 6. Petrov, T., The image of the war in Yugoslavia and its consequences in the electronic media in the country and abroad** - Notices of the Union of Scientists, "Humanities" series, (ISSN 1310-6376), 2000, Varna, p. 103 -107.

The report presents the results of a comparative study conducted over three randomly selected days (April 23, 24 and 27, 1997) focusing on the variety of media portrayals of the war in Yugoslavia by a team led by the report's author. Using the method of active monitoring, the main satellite TV channels were studied - CNN (USA), Euronews, Rai Due (Italy), TVE (Spain), RTR (Russia), RTSSAT (Yugoslavia) and Bulgarian channel 1, Efir 2 and the private national television Nova TV. The hypothesis is proven that the selected satellite channels organize the display of pictures from the war and the corresponding comment sections in a way that maximally adheres to the official position of the countries they represent.

- 7. Petrov, T., Choosing an optimal strategy when making specific political decisions by a fully informed expert group** - Marine Scientific Forum, T. 7. Social Science, Higher Naval School "N.Y.Vaptsarov", Varna, 2001, ISSN 1310-9278, p. 379-382.

The report examines the application in the political practice of methods in which the making of a political decision takes place after the evaluation of a group of alternatives, which are presented and evaluated consistently over time by a group of experts. Such cases in the political science are denoted by the term "an administrative problem". The selection of an optimal strategy by this method is made by the use of a quantity called a threshold, the value of which is in the numerical interval from 0 to 1, and it is established in such a way as to maximize the probability of the realization of the best sequence of choices of the corresponding alternatives.

- 8. Petrov, T., Use of specific expert systems in political analysis** - Marine Science Forum, T.7. Social Science, Higher Naval School "N.Y.Vaptsarov", Varna, 2001, ISSN 1310-9278, p. 383-386.

This work is focused on the application of the so-called intelligent information systems in the field of political analysis, in which a quick and economical process of choosing one of many alternatives is carried out, based on a pre-accepted system of criteria. An emphasis is placed on the expert systems, where the decision is made on the basis of strong heuristic potential, due to the fact that the decision-making expert group does not have sufficient information in terms of volume and quality. Algorithms have been developed for making decisions based on incomplete information.

- 9. Petrov, T., President Hugo Chávez - in synchrony with or in opposition to the international political order at the beginning of the 21st century** - Collection "21st century - heritage and perspectives", ISBN 954-715-170-3, Varna, Varna Free University, 2003, p. 323-334.

The report presents and analyzes chronologically the events that were of key importance for the emergence of the crisis situation in Venezuela in April 2002 and its development into an open internal political conflict. They form an escalating social and political conflict, in which one side is represented by the President Hugo Chávez and part of his closest entourage, who succeeded in the final stage of the development of the conflict (after the removal of the President from power by the Commander of the Armed Forces of the country and part of its subordinate military) to activate a serious mass of the poorest strata of the population in their support. The other side of the conflict was a heterogeneous coalition of civilians and senior military personnel from the Armed Forces, who had the support of influential non-governmental organizations - entrepreneurs, major unions, professional organizations of lawyers, doctors, teachers and retailers. Chávez's return to the presidency, after a two-day detention at the Air Force base on the island of La Orchilla, happened with the help of a group of paratroopers who take over the base and then the Miraflores presidential palace without resistance. The report points out that, after that moment, all of Hugo Chávez's actions to control the crisis were marked by moderation.

10. Petrov, T., Political and institutional prerequisites for the formation and implementation of a common foreign and security policy of the European Union - International conference "The European Union after May 1, 2004 - is there a shock from the enlargement", Bulgarian European Studies Association, Varna, 2004, ISBN 954-9543-04-08, p. 53-60.

The report presents the main points of the normative construction of the common foreign and security policy and the special place of the EU Treaty (Maastricht, 1992). The main goals of the common foreign and security policy are presented, as well as the tools through which it is realized - definition of the main principles and orientations; general strategies; general actions; general positions; systematic cooperation between member states. The decision-making mechanisms in this area, the principles for its financing, as well as the established special institutions, which are responsible for its implementation, are presented.

11. Petrov, T., Possibilities for improving the electoral system in Bulgaria - Legal Thought, 2006, edition 2, ISSN 1310-7348, p. 96-101.

The article formulates certain principles to which the electoral system must comply in order to ensure a fair "transformation" of the votes cast by the voters into mandates won by the political entities. Three possible alternatives for improving the current electoral system in our country have been examined and one of them is chosen as the most acceptable: adopting a better version of the current proportional electoral system. For this purpose, a relatively rare variant of a proportional electoral system has been proposed as a possible option: a proportional system with a non-numbered voting list and a single vote. Its positive aspects, as well as the disadvantages that can be manifested in the political practice, are selectively analyzed.

12. Petrov, T., Comparative analysis of the varieties of the majority system used for the distribution of mandates in multi-mandate constituencies. – Marine Science Forum, T. 4. Social Science. Applied linguistics and foreign language learning. Higher Naval School "N.Y. Vaptsarov", Varna, 2006, ISSN 1310-9278, p. 189-196.

The report analyzes the characteristics of the main variants of a majoritarian electoral system for selection in multi-mandate constituencies, and on this basis certain conclusions are drawn regarding the possibilities for improving the current electoral system in our country. Several main varieties of this type of electoral system are presented: with repeated vote; with multiple vote; with limited vote; with single vote and with cumulative vote. It is concluded that the majority system with a single vote can be accepted as the most effective and the most applicable.

13. Petrov, T., Possibilities for introducing preferential voting in the elections for MEPs in Bulgaria - Yearbook of the Technical University - Varna, Varna, 2006. ISSN 1311-896X, p. 223-228.

The article presents the possibilities that electoral systems provide for the introduction of preferential voting in the election of MEPs in our country. Four variants of the proportional electoral system are presented: with a numbered voting list and single vote; with unnumbered voting list and single vote; with an unnumbered voting list and a limited vote and with an unnumbered voting list and a cumulative vote. It is concluded that the most suitable is the system with an unnumbered voting list and a single vote.

14. Petrov, T., Development and implementation of a new electoral system in the Republic of Bulgaria (co-authored with L. Avramov and I. Tashev) - Scientific conference with international participation, National Military University, V.Tarnovo, 2008.

The report analyzes the possibilities for a possible change of the proportional electoral system currently used in Bulgaria and its replacement with a variant of the majority electoral system with multiple voting and preferential voting. The main characteristics, calculation procedures and changes in the electoral districts necessary for the introduction of the new electoral system into the electoral practice of our country are presented.

15. Petrov, T., Project for a new electoral system in the Republic of Bulgaria (co-authored with L. Avramov and I. Tashev) - Yearbook of Technical University-Varna, vol. II, 2008, p.195-200.

The article offers an alternative idea regarding the proportional electoral system operating in our country, which is a majoritarian electoral system with multiple votes and preferential voting. The main advantages that this electoral system has over the current one are presented, as well as its characteristics, the calculation procedures that are applied and the possible changes in the electoral districts that must be implemented with a view to its implementation in the electoral practice in our country.

16. Petrov, T., Guidelines for improving the system for the standardization of social services in Bulgaria – 8th International Conference "Quality Strategy in Industry and Education", 8-15 June 2012, Varna, Volume 1, p.518-520.

The report emphasizes the view that the existing system for the standardization of social services in our country suffers from serious shortcomings that require its improvement. This can be done in the following directions: removing the various standardization documents and combining them into one common document containing standards for all social services in the country; in it, social services should be grouped according to functional proximity and thus standardized; to adopt a single unified structure of each standard; to replace the method of administrative control for compliance with the standards with the method of accreditation of the relevant social service provider.

17. Petrov, T., Systems for standardization of social services used in the EU. Comparative analysis (co-authored with I. Todorova) - Yearbook of Technical University of Varna, Varna, 2013, vol. 3, ISSN 1311-896X, p. 139-144.

The article presents the main elements of the standardization system for social services operating in some of the EU countries, as well as main standardization documents and practices operating in the Great Britain, Ireland, Spain and the Czech Republic. Special attention is paid to the standards and procedures that are used to maintain a high quality of social services. Inferences and conclusions have been made about the applicability of certain practices in the current standardization system for social services in our country.

18. Petrov, T., Improvement of the system for standardization of social services in Bulgaria (co-authored with I. Todorova) - Yearbook of Technical University of Varna, Varna, 2013, vol.3, ISSN 1311-896X, p. 145- 149.

The article provides a critical analysis of the standardization system for social services used in our country. On the basis of the experience of the leading EU countries in the field of standardization of social services, certain recommendations have been made for necessary changes in the legal framework regulating the mentioned matter in our country. These changes are expected to lead to an increase in the quality of social services offered.

19. Petrov, T., European practice in standardization of social services for residential care - Third International Scientific Congress, 50th Anniversary Technical University of Varna, Vol. 6, ISBN 978-954-20-0555-1, p. 9-14, 2012.

The report presents by comparison the main practices in the standardization of social services for residential care, used in some of the leading European countries. The main documents for the standardization of these services, which are used in Great Britain, Denmark and Spain, are reviewed. Conclusions are made regarding the guidelines for improving the standardization system in the country.

20. Petrov, T., Using the DEA method to analyze the effectiveness of social services for children deprived of parental care in Bulgaria - Collection of scientific works "Second

International Scientific and Practical Conference "Economics and Management" 2014", 2014, ISSN 1314 -197X, 7 pages

The report analyzes by comparison some basic social services that are provided as an alternative to the institutional care for children deprived of parental care. The following services are analyzed: Family-type center, Foster care, Transitional housing, Shelter facility, Mother and Baby Center, Foster care and adoption as an opportunity to permanently provide a family environment to the relevant target group. The theoretical foundations of the definition and measurement of the effectiveness of social services are presented. The results are stated regarding the comparative effectiveness of the examined social services.

21. Petrov, T., Econometric method for researching the effectiveness of social services for children deprived of parental care - Collection of reports "First scientific-practical conference with international participation "Social work, management and social development", Varna, year 2015, ISBN 978-954-20-0750-0, p. 25-31.

The report analyzes the practice of the implementation of basic social services, developed as an alternative to the institutional care in the course of the implementation of the social policy reform in our country. The following services were compared and analyzed: Family-type Center, Foster care, Transitional housing, Shelter facility, Mother and Baby Center, adoption and reintegration into the biological family. The results of the analysis are used to formulate conclusions about the effectiveness of the services and measures, which should be applied.

22. Petrov, T., Markova, P. Econometric Estimation of the Quality and the Efficiency of Social Services for Children Deprived for Parental Care - Empirical Studies on Economics of Innovation Public Economics and Management, Springer International Publishing AG, 2017, ISSN 2364-5075 (electronic), p.365-380.

The study aims to develop and test a methodology suitable for practical application, allowing carrying out of a socio-economic assessment of the quality and effectiveness of the provision of social services for children deprived of parental care, by using a combination of econometric and sociological methods. The subject of the study is to select a system of criteria containing 185 indicators based on conducted serial studies. The objects of the study are several focus groups, including experts and users of services (children and families) in northeastern Bulgaria. The methodology includes a sociological survey of different types of social services in the mentioned region and application of econometric methods - DEA and a regression analysis. The result of the study is development of a methodology and an assessment of the quality and effectiveness of the social services provided to the specified target groups in northeastern Bulgaria. Conclusions on the comparative effectiveness of different types of social services are drawn and recommendations are given regarding the priorities of the future social policy in the field of the development of social services for children deprived of parental care.

23. Petrov, T., Peycheva, N. Econometric Method of Assessment of Newly Developed Standards for Quality of Social Services for Adults – Monthly scientific journal Eurasian Union of Scientists, No 11 (56), part 4, 2018, DOI: 10.31618/ESU.2413-9335.2018.4.56, ISSN 2411-6467, p. 30-33.

The article contains a brief retrospective and critical analysis of the current system of standards for the quality of social services applied in the Republic of Bulgaria. It also presents a newly developed system of standards aimed at ensuring the quality of social services, which consists of ten sections covering all the main activities of the relevant social service providers. A study has been conducted using a combination of the Delphi method and analysis of variance to validate the new system of standards thus developed by applying a multi-stage iterative procedure. The obtained results have been analyzed and, on this basis, conclusions have been drawn regarding the applicability of the new standards.

24. Petrov, T., Use of the Delphi method for the analysis of the effectiveness of social services - Collection of reports "Third scientific-practical conference with international participation "Social work, management and social development: contemporary challenges, perspectives and innovative practices", Varna, 2019, ISBN 978-954-20-0803-3, p. 33-37.

The report outlines the main elements of the content of the Delphi Method and the procedure for its application. An opinion is expressed that this research method can be used in many areas of scientific knowledge, including in the field of social sciences. A step-by-step procedure has been developed to assess the effect of the use of the relevant social service, and on this basis an assessment of its economic efficiency, by an expert group, formed on the basis of pre-selected criteria, by applying the Delphi Method.

25. Todorova, S., Petrov, T., Study of the Labor Integration of Groups with Serious Difficulties in their Labor Realization on the Labor Market in Bulgaria, PROCEEDINGS - VOLUME I, 36th EBES CONFERENCE – ISTANBUL, 1-3 July, 2021, ISBN: 978-605-80042-6-9, p. 678-703.

The report presents a study that aims to identify the factors influencing the different levels of unemployment in the country through the use of statistical methods and official statistical information regarding the labor market for the period 2015-2019. The study was conducted in two stages. At the first stage, the main objective of the research is the establishment of the factors affecting the general level of unemployment in the country for the analyzed period, determining the significant factors affecting this level, determining the nature of the relationship between them, as well as quantifying the degree of influence of each of them. At the second stage of the research, the main goal will be to establish the factors affecting the unemployment level of people with disabilities, which group is considered as a group with serious difficulties in finding employment. To achieve the research objectives, a regression model has been developed reflecting the relationship between a dependent variable (the general level of unemployment) and a system of independent variables reflecting the influence of a complex of factors (unemployment levels of different structural unemployment group sections) for the analyzed period. The nature of the dependencies is established, the statistically significant factors are selected, the degree of influence of each of them is quantified, the factors are ranked, the adequacy of the model is checked and the results are analyzed. On the basis of the obtained results, conclusions are formulated and measures are proposed aimed at a general reduction of the unemployment

rate in the country, as well as at increasing the opportunities for employment of the various categories of unemployed persons with disabilities.

26. Petrov, T., Methodological approaches in the analysis of public policies in the social sphere - Collection of reports "Fourth scientific-practical conference with international participation "Social work, management and social development: contemporary challenges, perspectives and innovative practices", Varna, 2021, ISBN 978-954-20-0834-7, p. 90-97.

The report presents the main approaches in defining the concept of "public policy" developed in our specialized literature. An opinion is expressed about the absence in our country of appropriate scientific tools that can be used and give good practical results in the analysis of specific public policies implemented in the social sphere. To fill the mentioned gap, a Methodology for Public Policy Analysis, suitable for application in the social sphere, is presented, containing the following main elements – framework of ethical politics, planning tools, diagnosis, public offering, strategy for state intervention, management model. The content of the stated elements is presented.

27. Irina Todorova, Ivaylo Tzanov, Toshko Petrov, A Tool for Measuring Students' Opinions about the Degree in Which Learning and Teaching are Oriented to Students – PROCEEDINGS International Eurasian Conference on Education & Social Studies, Antalya, Turkey, October 22-24, 2021, e-ISBN 978-605-71031-2-3, p. 820-842.

The article addresses the problem of creating a scientific instrument suitable for measuring students' opinion about the extent to which learning and teaching is student-oriented during the relevant academic year. The tool was developed in 2020 at the Social and Legal Sciences Department of the Technical University of Varna, Bulgaria. The purpose of its creation is to support one of the main goals of the Bologna Process, which is related to the already developed comparative criteria and methodology for ensuring the quality of education. It aims to measure the extent to which the university succeeds in realizing the developed quality criteria and one of them in particular. According to Bologna With Student Eyes (BWSE) student-centered learning is one of the key commitments of the Bologna Process. Considerable progress has been made in the implementation of this standard, but the results obtained are still not satisfactory. According to the results of a survey, 50% of students consider the progress in realizing this standard to be very slow, while the other half see the actions that need to be taken, but are still not convinced that SCL (student-centered learning) is defined as a clear priority in higher education, noting that SCL is still not presented with all its characteristics and possibilities to the student community. "Bologna with Student Eyes" 2020, Brussels, December 2020 by the European Student Union (ESU) <https://www.esu-online.org/wp-content/uploads/2021/03/0037-Bologna-Publication>