



Curriculum vitae

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1. EDUCATION

Degree

- 1958 Secondary School of Transport, Sofia, Engineer, Transport Construction
1968 Higher Institute of Civil Engineering, Sofia, MS Civil Engineer Railway Construction
1979 State University of Civil Engineering, Moscow Ph. D Soil Mechanics Stress-Strain-Time Behaviour of Natural Soils

2. CAREER SUMMARY:

| | | |
|---------------|---|--------------------------|
| 1958 - 1962 | Firm for Transport Construction, Ruse | Technical Manager |
| 1968 - 1973 | State Committee of Science, Technology and Higher Education | Chief of Department |
| 1973 - 1975 | Scientific Center for Higher Education | Deputy Director |
| 1975 - 1980 | Higher Institute of Architecture and Civil Engineering | Assistant Professor SMFE |
| 1980 - 1987 | University of Arch. and Civil Engineering (UACE) | Associate Professor SMFE |
| 1987 - 1990 | University of Arch. and Civil Engineering | Vice Rector |
| 1990 - 1993 | University of Arch. Civil Engineering & Geodesy | Head of Department |
| 1993 - 2001 | University of Arch. Civil Engineering & Geodesy | Associate Professor SMFE |
| 2001- Present | University of Arch. Civil Engineering & Geodesy | Professor SMFE |

3. PERSONAL DATA:

Date of Birth - February 6, 1938. Place of Birth - Medkovets, Bulgaria. Marital Status – Married - two children.

4. PARTICIPATION IN INTERNATIONAL SCIENTIFIC CONFERENCES

- Eighth International Conference on Soil Mechanics & Foundation Engineering, (SMFE), Moscow, 1973.
- Sixth Danube-European Conference on SMFE, Varna -Bulgaria, 1980.
- Eighth Danube-European Conference on SMFE, Nurnberg (Germany), 1986 - as a General Reporter of Session E "Special Problems in Analysing Earth Dams"
- Second National Conference SMFE, Ruse (Bulgaria), 1987 - as a Secretary General and General Reporter of Session "*Stress-Strain Behaviour of Soils Massifs*".
- Second Baltic Conference on SMFE, Tallin (Estonia), May 1988.
- Fourth Conference of Rectors from Balkans Countries, Bucharest (Rumania), October 1988.
- Third Young Geotechnical Engineers Conference, Minsk (Belorussia), May 1989 - as an Invited Discussion Leader for Sessions: "*Evaluation of factors affecting the relation of prediction and performance*", and "*Calculated models and Methods of determination of soils parameters*".
- ISSMFE Council Meeting, Rio de Janeiro, August 12, 1989 - as a Voting Member.
- Twelfth International Conference on SMFE, Rio de Janeiro (Brazil), August 1989 - as a Chairman of Discussion Session DS-3 "*Selection of Design Parameters for Dam Foundations*".
- International Conference on Engineering Education in 2000, Budapest, June 1990, as a Vice-Rector.
- Ninth Danube-European Conference on SMFE, Budapest, October 1990 - as a Chairman of Discussion Session "*Deep Foundations*".
- 13th European Conference on SMGE, Prague, August 2003 – as co-reporter of main session 1 "*Man made deposits- recent and ancient*".

5. MEMBERSHIP IN PROFESSIONAL ASSOCIATIONS

- International Society for Soil Mechanics and Foundation Engineering (ISSMFE) - since 1970.
- Bulgarian Society for Soil Mechanics and Foundation Engineering, Secretary – (1985-2005).
- Union of Scientists in Bulgaria - since 1982.
- Scientific Technical Unions in Bulgaria - since 1958.
- Bulgarian Society for construction engineering - since 1990.
- ISSMFE Technical committee TC4, Earthquake Geotechnical Engineering - since 1994.
- Bulgarian Technical Committee (TK-56) for applying European structural codes – since 2004

6. UNIVERSITY COURSES THOUGHT

6.1. Undergraduate courses.

1. Soil mechanics-laboratory testing for civil engineering students, (1970 - present).
2. Supervision of foundation engineering project for civil engineering students, (1970 - present).
3. Soil mechanics and foundation engineering for civil engineering (industrial and housing construction) correspondent students, (1977-1979).
4. Soil mechanics and foundation engineering for regular and correspondent students-CE, hydrotechnical engineering construction (1977 - 1986).
5. Soil mechanics and foundation engineering for regular students - CE industrial and housing construction, (1986 - present).
6. Applied Geomechanics for civil engineering regular students (2000 – present).

6.2. Graduate courses.

1. Shallow and deep foundations - special problems.
2. Geotechnical design in transportation construction.
3. Special problems of foundation engineering design in regions with complicated soil conditions.
4. Soil properties of soft soils and geotechnical design.
5. Advanced soil mechanics and foundation engineering for MS students.
6. Applied Geomechanics.

7. RESEARCH SUPERVISION

7.1. Master of engineering dissertations.

1. "*Stability and deformation of high earth embankments.*" Mr.G. Jantchev MS degree dissertation, November 1980.
2. "*Prediction of the settlements of "Maritza" highway embankments.*" Ms. M. Kukujanova civil engineer's diploma project, June 1982.
3. "*Analysis of the landslides on "Varna gold sands complex" and project for fortification.*" Mr. G.Mihajlov MS degree dissertation, March 1987.

7.2. Doctoral dissertations

1. "*Influence of the temperature and waters on stress-strain-state of the pavement subgrade.*" Mr.V.Bojadgiev doctoral dissertation, 1991.
2. "*Prediction of the stress-strain behaviour of ash-embankment clay base situated in the Maritza-Iztok region*", Ms. M.Ilieva doctoral dissertation, 1991.
3. "*Two-dimensional stress-strain state of multi-phase soils massifs.*" Ms. L.Mihova doctoral dissertation, November 1993.
4. "*Geotechnical properties of the high plastic clay*". Ms M.Mahmud doctoral dissertation, April 1995.
5. "*Geotechnical analysis of the seismic stability of buildings and structures*", Mr. M. Todorov doctoral dissertation, March 1999.

8. PUBLICATIONS

- **Germanov, T.** (1975). "*Some problems of instruction in scientifically based production*". Problems of higher education, 7, Sofia, pp 27-29 (in Bulgarian).
- **Germanov, T.** (1975). "*Sandy-clay consolidation test, taking into account rheological properties of soil skeleton and compressibility of pore water*". Stroitelstvo, 4, Sofia, pp 26-28, (in Bulgarian).
- **Germanov, T.** (1976). "*On the multi-phase clay soils consolidation*". Stroitelstvo,1-2, Sofia, pp 25-27, (in Bulgarian).
- **Z.Ter-Martirosyan, Z., T. Germanov.**(1976). "*Compression of multi-phase clay in closed system*". Annuaire de l'Institut Supérieur de Genie Civil -Sofia, Vol.XXVI (1975-1976), Fasc.IV, pp 99-105, (in Bulgarian).
- **Stefanoff,G., T. Germanov.** (1977). "*Experimental investigations on the consolidation of multiphase clay soil*". Proceedings of the Fifth Danube European Conference on SMFE, Bratislava, pp 359-365.

- **Germanov, T.** (1977). “*Settlements of the shallow foundations base during construction*”. Stroitelstvo, 12, Sofia, pp 11-13 (in Bulgarian).
- **Germanov, T.** (1978). “*Multi-phase clay soils consolidation analysis taking into account creeping and ageing of soil skeleton*”. Dissertation for PhD, Moscow Inst. of Civil Engineering (in Russian).
- **Germanov, T.** (1978). “*Oedometer without lateral friction*”. Patishta, 7, Sofia, pp 18-20 (in Bulgarian).
- **Germanov, T.** (1978). “*On the bearing capacity of the soil base under short-time static loading*”. Stroitelstvo, 7, Sofia, pp 20-22 (in Bulgarian).
- **Germanov, T.** (1978). “*On the coefficient of earth pressure at rest of multi-phase clay soils*”. Patishta, 11, Sofia, pp 12-14, (in Bulgarian).
- **Germanov, T.** (1978). “*Evaluation of the creep parameters of clay soils*”. Annuaire de L'institut Superieur de Genie Civil, vol.XXVII, Fasc.IV, Sofia, pp 23-34 (in Bulgarian).
- **Germanov, T.** (1979). “*Settlements of the shallow foundations on clay base*”. Stroitelstvo, 1, Sofia, pp 11-13 (in Bulgarian).
- **Germanov, T.** (1979). “*Deformations of the clay soils base under high embankments*”. Patishta,2, Sofia, pp 4-6 (in Bulgarian).
- **Germanov, T.** (1979). “*Influence of the rheological properties of the soil skeleton on the deformations of the multi-phase clay soils*”. Technical Ideas, Bulgarian Academy of Sciences, 3, Sofia, pp 69-74. (In Bulgarian).
- **Dingozov, G., T. Germanov, G.Markov.** (1979). “*Influence of the multiphase nature of soil on the value and the distribution of pore pressure*”. Proc.VIII-th European Conf. SMFE, Brighton, A.A. Balkema, Vol.I, pp 139-142.
- **Germanov, T.** (1980). “*On the consolidation of high dam clay core*”. Bulgarian Academy of Science, Water problems, 12, pp 67-78 (in Bulgarian).
- **Markov G., T. Germanov.** (1980). “*Pore water pressure during compression*”. Stroitelstvo, 2, Sofia, pp 19-22 (in Bulgarian).
- **Germanov, T., Z.Ter-Martirosyan.** (1980). “*The influence of the thickness of the compacted layers on the stress and strain state of the multiphase clay soils*”. Proc. of Sixth Danube-European Conference on SMFE, Section 2, Varna, Bulgaria, pp 89-100 (in Russian).
- **Germanov, T., V.Ganthev.** (1980). “*Pore pressure in a multi-phase soil with no drainage possibility during construction*”. Annuaire de l'Inst. d'Architecture et Genie Civil, vol.XXVII, Fasc. IV, Sofia, pp 59-67, (in Bulgarian).
- **Dingozov, G., T. Germanov.** (1981). “*Consolidation des Noyaux d'Argile de Grants Barrages*”. Proc. of X-th ICSMFE, Stockholm, A.A. Balkema, Vol.9, 12/16, pp 645-648.
- **Stefanoff, G., A.Alexiew, T.Etimov, T. Germanov, K.Hamamdsiev.** (1981). “*VI Danube-European Conference on Soil mechanics and Foundation Engineering*”. Patishta, 5, Sofia, pp 4-9 (in Bulgarian).
- **Germanov, T., P.Yotov, G.Jantchev.** (1982). “*Prediction of the deformations of high embankment during construction and operation*”. Patishta, 11, Sofia, pp 1 - 4 (in Bulgarian).
- **Germanov, T.** (1982). “*On the boundary conditions of the embankment pore water pressure analysis*”. Annuaire de l'Inst. d'Arch. et Genie Civil, vol.XXIX, Fasc. IV, Sofia, pp 28-36 (in Bulgarian).
- **Germanov, T., G.Jantchev.** (1983). “*Evaluation of the creep parameters of clayey soils using standard odometer*”. Patishta, 4, Sofia, pp 14-16 (in Bulgarian).
- **Germanov, T., J.Jellev.** (1983). “*In situ tests of the multi-phase soils stress-strain-state*”. Found. Eng. and Soil mechanics, 4, Moscow, pp 30 - 31 (in Russian).
- **Germanov, T.** (1983). “*Prediction of the stress-strain-state of high-way embankments on soft soil base*”. Proc. VII-th Danube-European Conference on SMFE, Kishenev, II/5, pp. 213-216 (in Russian).

- **Germanov, T., B. Kirov.** (1985). “*Influence of waste waters on soil consolidation*”. Proc. of XI-th ICSMFE, San Francisco, 9/C/7 A.A. Balkema, pp 2407-2409.
- **Germanov, T.** (1986). “*Bericht zu Sitzung E (Special problems in analysing embankments)*”. Proc. 8-th Danube-European Conference on SMFE, Nürnberg, vol.II, pp 65-67.
- **Krastilov, I., T.Germanov, et al.** (1986). “*Guidance of soil mechanics and foundation engineering*”. "Technika", Sofia (in Bulgarian).
- **Germanov, T.** (1986). “*One-dimensional consolidation at the alternate limit of the layer*”. Annuaire de l'Inst. d'Arch. et de Genie Civil, vol. XXXII, Fasc. IV, Sofia, pp 29-36 (in Bulgarian).
- **Germanov, T.** (1986). “*On the stress state of multi-phase soils*”. Annuaire de l'Inst. d'Arch. et de Genie Civil, vol.2 XXXII, Fasc. IV, Sofia, pp 37-44, (in Bulgarian).
- **Abadjiev,C.B., T.S.Germanov, G.T.Markov.** (1987). “*Determination of tailings consolidation for a high spigotted upstream tailings dam*”. Proc. IX-th European Conference on SMFE, Dublin, A.A.Balkema, 4.1, pp 355-357.
- **Germanov, T., I.Ignatov.** (1987). “*Subgrade stability in non-consolidated state*”, Stroitelstvo, 10, Sofia, pp. 30 - 32 (in Bulgarian).
- **Germanov, T.** (1988). “*Base stability evaluation of the embankment on a highly compressible peaty soils*”. Proc. Baltic Conference on SMFE, Tallin, vol. 1, pp 174-179 (in Russian).
- **Germanov, T.** (1988). “*Creep and ageing effects on stresses and deformations of saturated clayey soils*”. Proc. International conference on rheology and soil mechanics, Coventry, Elsevier Applied Science, London and New York, pp 194-203.
- **Germanov, T., L.Mihova** (1988). “*Algorithm and program of two-dimensional problem of consolidation of nearly saturated clay Soils*”. Annuaire de l'Inst. d'Arch. et de Genie Civil, Sofia, vol. XXXIII, Fasc. IV, pp 25-33 (in Bulgarian).
- **Germanov, T.** (1988). “*Stress and strain state of earth massifs*”. General report of the II Conference on SMFE, Russe), Annuaire de l'Inst. d'Arch. et de Genie Civil, Sofia, vol. XXXIII, Fasc. IV, pp 157-163 (in Bulgarian).
- **Alexiew,A., E.Baloushev, W.Wenkov, T.Germanov, et al.** (1989). “*Handbook of soil mechanics and foundation Engineering*”. vol.1 and vol.2, Technika, Sofia (in Bulgarian).
- **Stefanoff,G., N.Kossev, T.Germanov.** (1989). “*Deformation in a weathered rock crust next to a dam*”. Proc. XII-th ICSMFE, Rio de Janeiro, A.A.Balkema, 22/8, pp 1631-1634.
- **Germanov, T., M.Konstantinov.** (1989). “*Numerical solution of two dimensional consolidation of multi-phase clay soils*”. Annuaire de l'Inst. d'Arch. et de Genie Civil, Sofia, Vol.XXXIV, Fasc.IV, pp 9-16, (in Bulgarian).
- **Germanov, T., V.Kostov.** (1990). “*Geotechnical problems in earthquake regions*”. Pros. of the First Sofia-Kyoto University Joint Seminar Workshop on Civil Engineering, Sofia, pp 40-42.
- **Denev, D., T.Germanov.** (1990). “*Stress-time state of anchor retaining walls for deep excavations*”. Proc. IX-th Danube-European Conference SMFE, Budapest, Akademiai Kiado, pp 69-74.
- **Germanov, T., L.Mihova.** (1990). “*Finite element analysis of two dimensional consolidation of saturated clay soil under static loading*”. Annuaire de l'Inst. d'Arch. et de Genie Civil, Sofia, vol. XXXV, Fasc.IV, pp 37-50 (in Bulgarian).
- **Germanov, T., N.Dimitrov, Br.Stantcev.** (1991). “*Time-settlement of a water supplying channel*”. Proc. X-th European conf. on SMFE, Florence A.A.Balkema, pp 413-416.
- **Germanov, T.** “*History and general aspects of geotechnical engineering*”. Annuaire de l'Inst. d'Arch. et de Genie Civil, Sofia, vol.XXXVI, Fasc.IV., pp 7-25 (in Bulgarian).
- **Germanov, T., L.Mihova.** (1992). “*Comparison of 1-d and 2-d stress-strain state analysis of multi-phase soil massifs*”. Annuaire de l'Inst. d'Arch. et de Genie Civil, Sofia, vol.XXXVI, Fasc.IV, pp 47-56 (in Bulgarian).

- **Germanov, T., D.Toshev.** (1993). “*Consolidation and filtration analysis of the "17-th April" dam project - Syria*”. Stroitelstvo, 10, Sofia, pp 20- 25 (in Bulgarian).
- **Germanov,T., V.Kostov.** (1993). “*Tailing properties for seismic stability evaluation of the "Benkovsky" Tailings dam*”. Proc. IV Bulgarian Conference on dam construction, June 1993, pp 107 - 118 (in Bulgarian).
- **Germanov, T., V. Kostov.** (1994). “*Liquefaction Potential Evaluation of Sands from NPP Sites*”. Proc. XIII ICSMFE, New Delhi (5-10 January 1994), Oxford & IBH Publishing CD, Vol. 1.3, pp 1311-1320.
- **Germanov, T., I. Ilarionov, M. Konstantinov.** (1994). “*Algorithm and computer code for two - dimensional consolidation analysis of multi-phase soils*”. Annaire de l'Inst. d'Arch. et de Genie Civil, Sofia, vol. XXXVIII, Fasc.IV, pp 8 -21 (in Bulgarian).
- **Germanov, T., V. Kostov.** (1994). “*Determination of Tailings Properties for Seismic Response Analysis of a Tailings Dam*”. Proc. First International Congress on Environmental Geotechnics, Edmonton, Alberta, Canada, 10 - 15 July 1994, pp 499 - 504.
- **Germanov,T., M. El Azab.** (1994). “*Geotechnical properties of Port-Said clays*”. Annuaire de l'Inst. d'Arch. et de Genie Civil, Sofia, vol.XXXVIII, Fasc.IV, pp 69-82.
- **Germanov,T., R. Soffev** (1998). “*Evaluation of nonlinear soil characteristics for design of high embankments*”. Annuaire de l'Inst. d'Arch. et de Genie Civil, Sofia, vol.XXXIX, Fasc.IV, pp.17-27 (in Bulgarian).
- **L.Mihova, T. Germanov, M. Konstantinov.** (1998). “*A new solution for two - dimensional consolidation analysis of multi-phase soils*”. Annuaire de l'Inst. d'Arch. et de Genie Civil, Sofia, vol.XXXIX, Fasc.IV, pp 43-54 (in Bulgarian)
- **Dimitrov, N., T. Germanov, D.Serafimov.** (1998). “*Analysis of the Earth pressure Distribution on Harbour Structures*” . Proc. XII ECSMGE, (Amsterdam, The Netherlands) ”Geotechnical Engineering for Transportation Infrastructure, Barends at al. (eds) 1999 Balkema, Rotterdam, ISBN 90 5809 7 pp.725 - 729.
- **Balushev, E., T.Germanov, et al.** (1999). “*Soil mechanics*”. (Editor T.Germanov) "UACG", Sofia, ISBN 954-724-015-03 (in Bulgarian).
- **Germanov, T.S.** (2000). “*Some problems of the geotechnical engineering education in Bulgaria*”. Proceedings First International Conference on Geotechnical Engineering and Training, Sinaia, Romania, pp. 97 - 100.
- **Germanov, T.** (2000). “*Effect of the Pore Water Pressure on the Stress-Strain behaviour of Earth Dams*”. Proceedings of the GEOTECH - Year 2000 Development in Geotechnical Engineering, AIT, Bangkok, Thailand, pp.429-438.
- **Germanov, T.** (2001). “*Effect of the Seismic Actions on the Value and Distribution of Pore Water Pressure in Cohesive Soils*”. Annuaire de l'Inst. d'Arch. et de Genie Civil, Sofia, vol.XL, Fasc.IV, pp. 61-72 (in Bulgarian)..
- **Germanov, T.** (2001). “*Stress-strain-time behavior of embankment structures and soil base*”. Habilitation work for full professor position conferment. http://new.uacg.bg/filebank/att_1332.pdf, (175 pages) (in Bulgarian).
- **Germanov, T.** (2003). “*Geotechnical properties of industrial waste deposits in Bulgaria*”. Proceeding XIIth European conference on SMGE, Prague, Vol.1, pp. 93-101.
- **Germanov, T.** (2003). “*Limit states (Stability, deformation, erosion....)*”. Proceeding XIIIth European conference on SMGE, Prague, Vol.3, pp. 119 - 125.
- **Kaltchev I.S., Germanov, T. S.** (2005). “*Evaluation of the Design Parameters of Overburden Dump Construction from an Open Pit Mine in Bulgaria*” . Proceeding VIIIth International conference on SMGE, Osaka, Japan.
- **Simeonov, S., Germanov, T., Hadjiyski, K., Todorov, M.** (2010) “*National parameters for BDS EN 1998-5; 2004, Eurocode 8, Foundation, retaining structures and geotechnical aspects*”. Proceedings International Conference on Civil engineering Design and Construction and Application of Eurocodes (Science and Practice), pp. 116 -121, (in Bulgarian).

- **Germanov, T.** (2011). “*Foundation engineering*” Lectures courses for civil engineering students. http://new.uacg.bg/filebank/att_1361.pdf, 152 pages (in Bulgarian).
 - **Germanov, T.** (2011). “*Applied geomechanics*” Lectures courses for civil engineering students. http://new.uacg.bg/filebank/att_1331.pdf, 210 pages (in Bulgarian).
 - **Germanov, T.** (2011). “*Soil mechanics*”. Basic book for using of all students and civil engineers. http://new.uacg.bg/filebank/att_1711.pdf, 410 pages (in Bulgarian).
- Illov G., **T. Germanov** at all. (2012). Guidance for geotechnical design by using EN 1997. Sofia, 455 pages (in Bulgarian).

9. Sponsored research and design reports

9.1. Research.

- 1971 *Improving of the system for scientific and practical student's education, (fundamental study).*
- 1975 *Design and equipment of oedometers without lateral friction (experimental study).*
- 1975 *Theoretical and experimental study on creeping and consolidation of clay soils.*
- 1978 *Temporary guidance for highway embankment stability evaluation*
- 1979 *Computer program for evaluation of highway embankments consolidation.*
- 1980 *Two-dimensional consolidation of multi-phase clay soils, (fundamental study).*
- 1983 *Waste waters effect on the changes of the ground base near chemical fertilizes plants (experimental study).*
- 1985 *Physical and mechanical properties and consolidation of the tailings from "Liuliacovitsa" tailing dam (experimental study).*
- 1988 *Methods for study and prediction of the stress-strain-state of the soil massifs and foundations (fundamental study).*
- 1991 *Seismic safety of NPP "Belene" water supplying channels, Liquefaction potential evaluation of saturated fine sands (experimental study).*
- 1991 *Physical and Mechanical properties of the spoil soils (experimental study).*
- 1992 *Seismic stability analysis of "Benkovsky" tailing dam. Dynamic soil properties evaluation.*
- 1992 *Seismic Upgrading Design of "Kozloduy" NPP. Units 1 and 2. Liquefaction study. Triaxial dynamic test of fine sand from pump-house No.3 site.*
- 1993 *Seismic stability of NPP "Belene" water supplying channels. Liquefaction potential evaluation of saturated sands - summary report.*
- 1993 *Seismic stability analysis of "Maritca Iztok No 1" ash dam. Laboratory dynamic tests of ash material.*
- 1995 *Evaluation of the Behaviour of Pipeline Joints under Seismic Loading and an Assessment of their Vulnerability. Part: Assessment of the Pipeline Subgrade Soil Conditions.*
- 1995 *Numerical Simulation of Earth Dam Stability. Laboratory & in situ studies for non linear soil properties evaluation*
- 2001 *Eurocode 7.2. Geotechnical design. Part 2.Design by assisted by laboratory testing. (translation and analysis)*
- 2001 *Eurocode 7.3. Geotechnical design. Part 3.Design by assisted by field-testing. (translation and analysis)*
- 2002 *Determination of national parameters for design in seismic regions.*
- 2002 *Bulgarian Code for Geotechnical Design- conception*
- 2006 *National Annex to EN-1997-1 "Geotechnical Design. Part 1. General Rules.*
- 2010 *Eurocode 8.5. "Foundation, retaining structures and geotechnical aspects Foundation – determination of national parameters.*

9.2. Design.

- 1979 *Sport hall project - Russe, foundations project.*
- 1982 *Basic Mechanical engineering plant "Radomir" project. Foundations of installation buildings.*
- 1985 *Computer program for ultimate limit states evaluation of the soil base under ash-dams of "Martsa-iztok" terminal power station, taking into account soil consolidation.*
- 1985 *Packinghouse meat production "Vratsa" project. Foundations and water proofing for pumping station.*
- 1985 *"Liuliacovitsa" tailing dam project. Tailings rheological properties evaluation.*
- 1986 *Goods station "Stara Zagora" project. Static calculations for sand cushion depth determination and bearing capacity evaluation of the crane beam.*
- 1986 *Observation of the "Svishtov" wide-screen cinema site.*
- 1986 *Bridge and way's variants on the "Sazlijka" river project. Geological and soil mechanical study.*
- 1987 *NPP Belene Blok 1, turbo-generation foundation projects. Experimental study for evaluation of the gravel-sand base dynamic parameters.*
- 1987 *Foundation project for Law Curtis and lawyer's office "Plovdiv".*
- 1988 *Electrical substation "Iztok", Svishtov project.*
- 1988 *Soil compacting project for CVGT - "Septemvry"*
- 1988 *Tests of foundation bearing capacity for Production hall-Gorubliane.*
- 1988 *Engineering-geological study of "PPP-kv.72-Svishtov" project.*
- 1988 *Dairy factory "G.Toshevo" project. Soil samples test.*
- 1988 *Railway Strajitsa-Dralpha-Shumen project - soil base studying and evaluation.*
- 1989 *NPP "Kozloduy" water supplying channels project - dynamic triaxial test of saturated sands.*
- 1989 *"Mladej" dam project. Clay core pore water pressure and dam deformations evaluation.*
- 1990 *"Belasitsa-Petrich" dam project. Dam consolidation evaluation.*
- 1990 *NPP "Kozloduy" additional water supplying channels. Laboratory and in situ testing, static and dynamic calculations of the channel construction and soil base*
- 1991 *"17-th April" dam project Syria. Consolidation analysis.*
- 1991 *School-20 classes "Obelia"-Sofia project. Laboratory and in situ testing for compactness embankment evaluation.*
- 1992 *"Kustendil" earth dam project. Consolidation analysis.*
- 1992 *Residential building "Lozenets ul. Baucher", Sofia. Geotechnical report.*
- 1993 *Residential building - ul. "Gorsky Patnik" 51, Sofia. Geotechnical report.*
- 1993 *NPP "Kozloduy"- Central Pump House-2. Selection of soil characteristics for dynamic soil-structure interaction analysis.*
- 1993 *Poland Embassy Complex "Belite Brezy". Geotechnical study.*
- 1994 *Railway tunnel No2 "V. Turnovo" fortification. Geotechnical study and fortification structure project.*
- 1995 *Tigris Irrigation Project - Syria. Subproject "MALKIEN DAM". Part: Consolidation Analysis (Clay Core Pore Water Pressure & Dam Settlement)*
- 1995 *Residential building "Borovetz" str. No5, Sofia. Geotechnical report.*
- 1995 *NPP "Kozloduy"- Central Pump House No2 and No3, water supplying channels dam. Shear strength soil characteristics evaluation.*
- 1995 *"Belmeken" Earth Dam. Shear strength soil characteristics evaluation.*
- 1995 *"KRAMIS DAM", Algiers. Part: Consolidation Analysis (Clay Core Pore Water Pressure & Dam Settlement)*
- 1996 *"BOBOV DOL" - Thermo-electric power station. Ash-embankment project.*
- 1996 *Site: Black Sea "Bogdanov - North". Laboratory soils properties determination according to ASTM.*

- 1996 "BOUGOUS", Algiers. Part: Consolidation Analysis (Clay Core Pore Water Pressure & Dam Settlement)
- 1997 "Liuliacovitsa" tailing dam project. Embankment Stability Analysis. Soil Properties Evaluation
- 1997 "AL HUSSEIN" Dam Project - Syria. Mathematical modelling for the stability of dam body. Consolidation analysis. Clay core pore water pressure and dam settlement.
- 1998 Project for fortification of Landslide situated on "M.Palauzov" street, Second zone, "Ardino" town
- 1999 Environmental remediation program -project EP-004. Encapsulation of Blue Lagoon. Study on Slime Consolidation Properties. Activities: A3.Geotechnical oedometric tests. A4. Triaxial shear tests.
- 1999 "Russe" railway station complex. Project for dewatering and improvement of the railway bed.
- 2000 Wholesale market Maritsa - Haskovo. Assembly market, Subprojects No.No. 100,110,111. , Foundations; Phase: final design.
- 2000 "Liuliacovitsa" tailing's dam. Real geotechnical properties determination of the tailing's deposit.
- 2000 "Buhovo" tailing dam. Geotechnical Study for determination of the physical and mechanical properties of soil samples from earth embankment
- 2001 "Remediation and encapsulation of Oxidative ponds Burgas". Geotechnical study for determination of physical and mechanical properties of petroleum refusals
- 2002 "Liuliacovitsa" tailing's dam. Laboratory testing for determination of physical and mechanical properties of the new tailing's deposit.
- 2002 "MARKIEH" Dam Project - Syria. Consolidation analysis. Clay core pore water pressure and dam settlement.
- 2002 Laboratory investigation for determination of the grain size distribution and coefficient of permeability at the "Eleshnitsa" tailings dam project.
- 2003 Laboratory investigation for determination of the geotechnical properties of bentonite sands mixtures
- 2003 Laboratory investigation of undisturbed samples taken from Liuliakovitsa tailings dam.
- 2003 ZEIZUN" Dam Project - Syria. Consolidation analysis. Clay core pore water pressure and dam settlement.
- 2005 Dry Storage Facilities at Kozloduy NPP, Geotechnical investigations.

10. CONSULTING AND EXPERIENCE

10.1. Reviews of research reports, articles and books.

- 1970 Guidance for design and analysis of underground pipelines
- 1976 Temporary guidance for highway embankment stability evaluation
- 1982 Guidance of Soil mechanics and foundation engineering for students
- 1984 Research report: - "Static analysis and design of foundations"
- 1984 Research report I-24182: "Theoretical investigations on stress - strain state of soil base"
- 1984 B-091984 - Guidance for design of anti-landslides structures
- 1985 Research report I-259/84: Experimental determination of initial stress - state of soil massifs
- 1985 Research report 1823/84: "Constructions for landslides fortification"
- 1985 Research report 1813/84: "Retaining structures for deep excavations of Sofia subway"
- 1985 Research report O-118/84: "Dynamic stability of sand base under rigid shallow foundations"
- 1986 Ph. D. M. Hamova Thesis: "Shear strength and deformation properties of alluvial sands and dynamic stability of sand base".
- 1986 Articles and research reports for SMFE associate professor conferment of Dr M.Hamova
- 1986 Research report 15416/86: "The depth of foundation as factor for foundation value decrease".

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- 1987 *Research report I-389/86: "Experimental study on foundations with terrace foundation bed"*
- 1988 *Research report 1143/88: "Geotechnical and hydrogeological study and analysis of the section of Sofia subway (Boul. "B.Paraschkeva"- "Vrah Mantcho")"*
- 1988 *Research report 11143/88: "Seismic actions on subway construction and vibration actions on neighbor buildings and underground constructions"*
- 1989 *Research report 17/89: "Normative base of construction - Analysis of codes for geotechnical design"*
- 1989 *Research report: "Raney wells for additional water- supply system Izmail-Russia"*
- 1990 *Research report O-359/90: "Observation of buildings and soil base study of THK "G.Genov" Russe"*
- 1990 *Articles and research reports for SMFE associate professor conferment of Dr. D.Denev*
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- 1991 *Articles, monographs and research reports for SMFE professor conferment of Dr. sc. T.Etimov*
- 1992 *Article: "Relationship between shear-strength resistance of saturated soils and degree of consolidation" (by I.Krastilov and A.Alexiew)*
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- 1993 *Research report O-504/94: "Technical project for seepage drainage in the drain - pipe area on the Sofia - Varna railway, km 351+880"*
- 1993 *Research report O-501/93: "Engineering study of the arch bridge on the Jambol-Elhovo railway, km.31+367".*
- 1993 *Research report O-503/93: "Geotechnical study of the Plovdiv-Svilengrad railway, km. 228 +230 and km. 229+860".*
- 1994 *Research report O-525/94: "Geotechnical study and fortification project of Jasenovetz - Samuil railway, km. 80+300 - 82+050".*
- 1994 *Research report O-526/94: "Geotechnical study and landslide stabilization project of Lovech-Ablanitza railway, km. 103+200".*
- 1994 *Tempus programs for 1995 individual mobility grants*
- 1994 *Research program: Assessment of the stress-strain behavior of rock massifs taking into account rheological and dynamic properties of the rocks.*
- 1995 *Ph.D. V. Rizov Thesis: "On some elasto-plastic models for two and three-dimensional analysis of the deformable media behavior"*
- 1995 *Research report O-443/92: "Study on the abutment stability of the Russe-Gurgevo Danube River Bridge"*
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- 1995 *Research report O-440/92: "Railway embankments design"*
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10.2. Consultation and expert conclusions

- 1976 *Micro reservoir and agriculture structures on Kortina, Draganovo site. Expert conclusion on the reasons of failure (earth slide of slopes).*
- 1976 *Sport-education complex "Darvenitza" Sofia. Evaluation of deformation modules and bearing capacity near the water supply installation*
- 1978 *Fortification of the barrage on the "Maritza" river bottom. Expert conclusions of the reasons for failure after a seepage and recommendations for fortification*
- 1979 *Water-treatment plant "Kustendil". Expert conclusion of the reasons of the settling basin failure and recommendations for restorations of the retaining wall.*
- 1982 *State arbiter of the Ministry of construction. Evaluation of the sand base under jib-crane after failure at 15.08.1980 in Stara Zagora.*
- 1984 *"Sliven" rock-fill dam. Evaluation of the subgrade bearing capacity under spillway.*
- 1984 *Bridge on the Sofia circular railway. Estimation of the safety distance from the bottom of the excavation to the railway axis*
- 1984 *"Shipkovo" military holiday house project. Expert conclusion of the type of foundation on karst bed rock*
- 1985 *"Teva-Pernik" 30 classes school project. Expert conclusion on the type of foundation on soft rock.*
- 1985 *"Hemus" highway project. Evaluation of the sand-gravel cushion depth under embankment*
- 1985 *Military building N 5900 project. Evaluation of the site conditions after landslide actions and recommendations for slope stability fortification*
- 1985 *"Stolipino-Plovdiv" housing complex project. Expert conclusion of the foundations protection against aggressive waters*
- 1985 *Printing house Sofia, project. Expert conclusion and recommendations for the foundation on the swelling soils*
- 1986 *Heating plant "D.Dichev". Expert conclusions on the bearing capacity of the soil basement under ash-dam*
- 1986 *"MTB-Malashetzi" water supply system project. Expert conclusion on the possibility to use of ash for back fill.*
- 1986 *"Plovdiv-Zimnitsa" double-track railway Foods station "Stara zagora" project. Expert review on the project change of the crane beam construction and sand cushion depth*
- 1988 *Electrical substations "Unak", "Nadejda" & "Narodna" Sofia. Expert conclusions of the reasons for cracks of the buildings and recommendations for restoration.*

- 1988 Plant of special metal-ceramics Sofia. *Expert conclusion on the influence of the columns and walls cracking to the new main building stability*
- 1988 Sofia "Tchehov" 39 housing building project *Expert conclusion on possibility of superstructure near to existing residential building*
- 1988 "Moskovska" str. building project for Council Ministers. *Expert conclusions of the underpinning foundations stability*
- 1988 TMK "G.Damianov" tailing dam. *Expert conclusion on the reasons for slope sliding and recommendations of the slopes fortification*
- 1989 "Botevgrad" Institute of machine construction. *Expert conclusion of the soil base stability under machine foundations*
- 1989 Sofia new airport project *Evaluation of the geotechnical study project*
- 1992 "Lozenec - Sofia", housing buildings. *Determination of soil properties, and foundation bearing capacity assessment*
- 1995 "Grand Shen" Bank project. *Expert conclusion for the type of the foundation*
- 1995 "N.Liliev" No14A Sofia, housing buildings *Expert conclusions of the excavation supporting near the existing building.*
- 1996 Oreshkovo site , Kaluga Russia *Expert Conclusion on the possibility for foundations work without gravel bed end drainage system*
- 1996 "BOBOV DOL" - Thermo-electric power station. *Evaluation of the influence of the water supplies system on landslide's activation.*
- 1997 "Rozov Kladenec" Dam. Project of Stabilisation. *Expert conclusion on the selection of soil characteristics for dam stability evaluation.*
- 1998 "Eleshnitca" tailing dam. *Evaluation of the shear strength and deformability properties of the tailing's materials.*
- 1999 NPP "Kozloduy". *Expert conclusion concerning the subgrade and construction conditions off the hotel building.*
- 2004 Construction of "Housing building with garages", in Pleven town. *Expert conclusion concerning the reasons for the slope stability failure during the period of excavation and construction of the basement story for 12-story housing building.*
- 2004 Airport Sofia – reconstruction development and extension. *Expert conclusion concerning evaluation of the materials used for LOT B2 embankments.*
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