

CHEBOTAREV, A. I.

AUTHORS: Uryvayev, V. A., and Chebotarev, A. I.

50-11-6/9

TITLE: 40 Years of **Dry Land** Hydrological Research (Issledovaniya v oblasti gidrologii sushni za 40 let).

PERIODICAL: Meteorologiya i Gidrologiya, 1957, Nr 11, pp. 41-50 (USSR).

ABSTRACT: The research of continental hydrology can be divided into the following groups:
1. - Perfection of its methods, preparation of methodologic means, handbooks and working out of constructions of hydrological apparatus; 2. - Hydrographic works; investigation of processes of the formation of water drainage as well as of the working out of methods of the calculation of its main characteristics; 4. - Study of the structure of the river flow and of the processes of river beds; 5. - Hydrographic investigations; 6. - Hydrochemical works.
For the removal of the present essential lacks of the division of the network it was necessary to work out scientifically based principles of the division and to create a state-owned supporting network based on constant scientific basis with respect to the rational sheltering of the basis points on territory as well as the standardization and maintainance of the methods of observation.
The unification of hydrological observations and water-investigation

Card 1/4

40 Years of Dry Land Hydrological Research.

50-11-6/9

works took place in 1929 when the hydro-meteoro-logical standard service was founded. Furthermore works for the putting down of all experiences of the carrying out of hydrometric works as well as of the preparation of methodological means were carried out which determine the consequence and elaboration of these works. The recommendations on the duration of observations at various points of the flow used in practice of hydrometric works were analysed with respect to the elimination of the influence of pulsation, as well as recommendations on the calculations of mean velocities of flows in the vertical direction and on the consequence of water calculations and the utilization of various kinds of measurements of water consumption, as there are, the photometric process, etc. For the presence the elaboration of hydrometric works with domestic constructions is secured.

2. Not regarding the old age of original hydrographic works with certain methods of operation and tasks the content of hydrology developed to be an own science with the task of establishing the hydrology of continents as a whole.

A great work of hydrological character was carried out in arranging the water register of rivers. It consisted in describing in detail the rivers, lakes and moors by separate chapters of reference books of water wells in the USSR.

Card 2/4

50-11-6/9

40 Years of **Dry Land Hydrological Research.**

The hydrographic works contained not only district-wise descriptions of water objects but also investigated the single elements. Essential characteristics of these investigations of water wells are not only a decisive increase of the scope of hydrometric works and a perfection of its methods but also the collection of great experiences, as in the hydrography of the USSR, as well as the determination of physical regularities which direct the processes developing in the water basins. The investigations of the problems of river flows develop mainly with the intention to elaborate the methods of calculation of flow standards, the changeability of flow within several years, the distribution of the drainage referred to the whole year as well as the calculations of maximal and minimal figures. Great attention was paid to the development of the methods of calculation of maximal rain- and snow drainage. Instead of the empiric formula of M. M. Protodyakonov the standards of rain drainage of smaller areas of entrance were worked out which are based on a more detailed investigation of the single elements of floods and which differ essentially in this respect from earlier ideas. Thanks to the investigation of problems of the calculation of drainage distribution within the whole year its standardized schemes

Card 3/4

40 Years of **Dry Land Hydrological Research.**

50-11-6/9

and recommendations for the determination of combinations of calculations of the water level of the single seasons within the year were worked out. The working out of practical recommendations of drainage calculations was based on statistical data of observations and of the network of hydro-meteorological stations as well as on an explicit study of the conditions of development of drainage in nature.

AVAILABLE: Library of Congress.

1. Hydrology-Development-USSR

Card 4/4

AUTHOR: Chebotarev, A. I. 50-1-22/26

TITLE: Boris Dmitriyevich Zaykov (On the Occasion of his Sixtieth Birthday) (Boris Dmitriyevich Zaykov (K 60-letiyu so dnaya rozhdeniya))

PERIODICAL: Meteorologiya i Gidrologiya, 1958, Nr 1, pp. 63-65 (USSR)

ABSTRACT: On December 6 Boris D. Zaykov, Doctor of Geographical Sciences and Professor, one of the most renowned soviet hydrologists, became 60 years old. He was born in 1897 in Petersburg in the family of an employee. 1925-1927 he participated in the Yakut expedition, established the first hydrometeorological station in the Yakut Republic in the upper course of the river Alden and conducted it for one year. The results of the investigation of the lake Sevan, conducted by him, were published in the "Bulletins of the Office for Hydrometeorological Research of the Lake Sevan". 1931-1932 he conducted the office for hydrometry where he occupied himself with investigations of the hydrological conditions of the lower Dnyepr. The investigations carried out by him in 1935 may be subdivided in four groups:
1) Calculations of the characteristics of the flowoff;

Card 1/2

Boris Dmitriyevich Zaykov (On the Occasion of his Sixtieth Birthday) 50-1-22/26

2) Geographical data of the flowoff of the river; 3) water conservation of the water basins and 4) evaporation at the surface of the water. Among the works containing the conclusions on the calculations of the flowoff of the river the widely known work "Several Years' Average Flowoff of the Rivers of the USSR" is to be mentioned. In recognition of his services in the development of hydrology the scientific degree of a Candidate of Geographical Sciences was without a dissertation conferred on him. In 1944 the title of a Doctor of Geographical Sciences was bestowed on him on the basis of his work "The Flowoff of the Rivers of Europe" and in 1946 he became Professor. There is 1 figure.

AVAILABLE: Library of Congress

1. Zaykov, Boris Dmitriyevich-Biography
2. Hydrology

Card 2/2

Chebotaev, A. I.

AUTHORS: Chebotarev, A. I., Popov, I. V. 50-2-20/22

TITLE: IIIrd All-Soviet Hydrological Meeting (III Vsesoyuznyy gidrologicheskiy s"yezd).

PERIODICAL: Meteorologiya i Gidrologiya, 1958, Nr 2, pp. 57-60 (USSR).

ABSTRACT: This meeting took place in Leningrad from October 7th to October 17th, 1957. It was the main task of this meeting to strike a balance of the investigations of the waters and of the continent during the 40 years of Soviet power and to determine the trends of a further development. Following problems were discussed on the meeting: calculation of the river flow and other elements of the water supply, hydrological forecasts, hydrophysics (mainly in the field of the research into and working out of computation methods of the evaporation of snow and ice), computations of the hydrological conditions of lakes and water reservoirs, hydrodynamics and processes of the alterations of the river-bed, hydrological computations, changes of the humidity of the atmosphere, problems of regional hydrology, hydrometry and of the construction of equipment, of the groundwater and of the underground feeding of the rivers, of hydrochemistry as well as of the

Card 1/4

IIIrd All-Soviet Hydrological Meeting.

50-2-20/22

sanitary control of the waters, and also of the hydrology, however, only to the extent to which they are connected with the problems of the continental hydrology. 1295 permanent participators were present on the meeting, 1260 of them were from the Soviet Union, who represented 23 nationalities of 15 Soviet republics. In the meeting took part: the institutes of the AN USSR, and among them in the first place the Department for Hydrology, the Geographical Institute, the Hydrochemical Institute, and the Institute for Hydrology and Hydraulic Engineering of the AN of the Ukrainian SSR. This meeting was the reason for an exhibition which demonstrated the successes of the hydrology in the course of 40 years. 35 organisations took part in this exhibition. The lectures held on the IIIrd meeting on the problems of the groundwater solved the problem of the feeding of rivers and the taking into account of the connection between the underground- and surface water in the hydrological computations, as well as of the forecasts of water conditions. It was the unanimous opinion that a closer coordination of the works is to be desired, and that it is necessary to create special institutions for the testing of numerous methods for the hydrological computation and to establish centres for the planning of the exploitation of the

Card 2/4

IIIrd All-Soviet Hydrological Meeting.

50-2-20/22

water supplies of the country and for the control of the natural waters. The physical standpoint with reference to the research of the hydrological processes represents a reliable basis for a further application of the statistics, also for the probability theory, the characteristics and the geographical connections of the hydrological values. On the meeting it was found that various standpoints on problems of hydrological investigations and theoretical bases are a consequence of imperfect initial data of the computations and the schematization of phenomena. The problem of the water regulation is a new aspect of hydrological research. More and more new water reservoirs appear on the map which entail a considerable alteration in the natural conditions of the country and demand the development of new methods of research, computation, and forecast. In connection with the establishment of energy supply systems in the country the question of the investigation of the fluctuations of the run-off within long intervals and their coincidence with respect to time is especially important for the regulation of the production of the hydroelectric power.

Card 3/4

CHEBOTAREV, A I.

SOV-98-58-2-18/21

AUTHOR: Shumel', S.S., Engineer, Member of the Presidium, 3rd All-Union Hydrological Congress

TITLE: The Third All-Union Hydrological Congress (III Vsesoyuznyy gidrologicheskiy s"yezd)

PERIODICAL: Gidrotekhnicheskoye stroitel'stvo, 1958, Nr 2, pp 60-61 (USSR)

ABSTRACT: The Third All-Union Hydrological Congress took place in Leningrad at the end of 1957. The Congress was attended by 1,240 scientists, engineers and specialists, employed at 300 scientific-research organizations and vuzes, scientific-technical societies of the electric power industry, mining industry and water transport, and 35 specialists from Albania, Bulgaria, Hungary, East Germany, China, Mongolia, Poland, Rumania, Czechoslovakia and Yugoslavia. The Congress examined the conditions and prospects for research into the hydrology continents, and pointed out the great achievements accomplished in the field of hydrology and water resources of the USSR. A number of reports was heard by the Congress, among which may be mentioned the report of Candidate of Technical Sciences V.A. Uryvayev (State Hydrological Institute) "The Study of the USSR Continental Waters and Further Tasks in This

Card 1/4

The Third All-Union Hydrological Congress

SOV-98-58-2-18/21

Field". The Doctors of Technical Sciences S.N. Kritskiy and M.F. Menkel' (Section for the Scientific Development of Problems of Water Economics, USSR Academy of Sciences) and Candidate of Technical Sciences A.I. Chebotarev (GGI) reported on "Water Engineering in USSR and Problems of Hydrology". Professor A.N. Voznesenskiy (Institute "Energoprojekt") spoke on "The Utilization of the USSR Water Resources and the Prospects for Developing Water Power". A total of 9 specialized sections were working at the Congress: Calculations and Prognoses (Chairmen - Doctor of Technical Sciences, Professor D.L. Sokolovskiy, Candidate of Technical Sciences A.I. Chebotarev and Doctor of Geographical Sciences G.P. Kalinin); Hydrophysics (Chairman - Doctor of Geographical Sciences, Regular Member of the RSFSR Academy of Pedagogical Sciences, Professor B.P. Orlov); Lakes and Water Reservoirs (Chairman - Doctor of Technical Sciences, Honored Worker of RSFSR Science and Engineering, Professor Ye.V. Bliznyak); Hydrodynamics and River-Bed Processes (Chairman- **Corresponding Member, AS USSR**, Honored Worker in RSFSR Science and Engineering, M.A. Velikanov); Water Economics (Chairmen - Doctors of Technical Sciences S.N. Kritskiy and M.F. Menkel'); General Hydrology (Chairman - Doctor of Geographical Sciences,

Card 2/4

The Third All-Union Hydrological Congress

SOV-98-58-2-18/21

Professor L.K. Davydov); Hydrometry and Methods of Hydrological Research (Chairman - Candidate of Technical Sciences A.K. Proskuryakov); Underground Waters and Problems of Underground Feeding of Rivers (Chairman - Doctor of Geological and Mineralogical Sciences, Professor B.I. Kudelin); Hydrochemistry and Sanitary Protection of Waters (Chairman - Corresponding Member, AS USSR, O. A. Alekin). Over 400 reports on all principal problems of the hydrology of continents were delivered and discussed at the sections. The author lists the work performed during the 40 years of Soviet regime and speaks of current needs. The Congress adopted several decisions, approving the resolutions of the sections, and considered it necessary to establish an inter-departmental committee to co-ordinate scientific research work. The Congress decided to take necessary measures for an urgent exploitation of the State Hydrological Institute's River-Bed Laboratory, whose activity should further the solving of important scientific problems in the field of hydrodynamics and river-bed processes. Future hydrological congresses

Card 3/4

The Third All-Union Hydrological Congress

SOV-98-58-2-18/21

will convene once every 5 - 7 years.

1. Hydrology---USSR 2. Water power--USSR

Card 4/4

LUCHSHOVA, Aleksandra Anatol'yevna; BUROVETS, Ye.P., retsenzent;
CHEBOTAREV, A.I., otv.red.; IVZHENKO, A.A., red.; YASNO-
GORODSKAYA, M.M., red.; BRAYNINA, M.I., tekhn.red.

[Practical hydrology; exercises in hydrological calculations]
Prakticheskaya gidrologiya; uprazhneniia po gidrologicheskim
raschetam. Izd.2., perer. i dop. Leningrad, Gidrometeor.
izd-vo, 1959. 467 p. (MIRA 13:2)
(Hydrology--Tables, calculations, etc.)

URYVAYEV, V.A., kand.tekhn.nauk, obshchiy red.; VOSKRESENSKIY, K.P.,
kand.geograf.nauk, red.; KUZIN, P.S., kand.geograf.nauk, red.;
PROTAS'YEV, M.S., kand.geograf.nauk, red.; CHEBOTAREV, A.I.,
kand.tekhn.nauk, red.; SHATILINA, M.K., red.; VLADIMIROV, O.G.,
tekhn.red.

[Surface water resources in regions of reclaimed virgin and waste
lands] Resursy poverkhnostnykh vod raionov osvoenia tselinnykh
i zaleznykh zemel'. Leningrad, Gidrometeor.izd-vo. No.3.
[Kokchetav Province, Kazakh S.S.R.] Kokchetavskaya oblast' Kazakhskoi
SSR. Pod obshchei red. V.A.Uryvaeva. 1959. 563 p. (MIRA 12:10)

1. Leningrad. Gosudarstvennyy gidrologicheskiy institut. 2. Direk-
tor Gidrologicheskogo instituta (for Uryvayev).
(Kokchetav Province--Hydrology)

URYVAYEV, V.A., kand.tekhn.nauk, obshchiy red.; VOSKRESENSKIY, K.P.,
kand.geogr.nauk, red.; PROTAS'YEV, M.S., kand.geogr.nauk, red.;
CHEBOTAREV, A.I., kand.tekhn.nauk, red.; MURANOV, A.P., kand.
geogr.nauk, red.; MIROZENKO, Z.I., red.; VLADIMIROV, O.G., tekhn.red.

[Surface-water resources in districts of reclaimed virgin and waste
lands] Resursy poverkhnostnykh vod raionov osvoenia tselinnykh i
saleshnykh zemel'. Pod obshchei red. V.A.Uryvaeva. Leningrad, Hidro-
meteor.izd-vo. No.2. [Kustanay Province, Kazakhstan] Kustanskaya
oblast' Kazakhskoi SSR. 1959. 709 p. (MIRA 12:4)

1. Leningrad. Gosudarstvennyy gidrologicheskiy institut.
(Kustanay Province--Hydrology)

GUREVICH, M.I., kand.geogr.nauk; POPOV, I.V., kand.geogr.nauk; SPENGLER, O.A., kand.geogr.nauk; URIYAYEV, V.A., otv.red.; SOKOLOVSKIY, D.L., prof., doktor tekhn.nauk, red.toma; CHEBOTAREV, A.I., dotsent, kand.tekhn.nauk, red.toma; KALININ, G.P., prof., doktor geogr.nauk, red.toma; GROSMAN, R.V., red.; SHATILINA, M.K., red.; BRAYNINA, M.I., tekhn.red.

[Transactions of the Third All-Union Hydrological Congress] Trudy III Vsesoiuznogo gidrologicheskogo s"ezda. Leningrad, Gidrometeor. izd-vo. Vol.2. [Section of runoff calculations and forecasts] Seksiaia raschetov i prognozov stoka. 1959. 767 p. (MIRA 13:2)

1. Vsesoyuznyy gidrologicheskii s"yezd. 3d, Leningrad, 1959.
(Hydrology--Congresses) (Runoff)

KONDRAT'YEV, Nikolay Yevgen'yevich, starshiy nauchnyy sotrudnik;
CHEBOTAREV, A.I., otv.red.; CHEPELKINA, L.A., red.;
YASNOGORODSKAYA, M.M., red.; SERGEYEV, A.N., tekhn.red.

[Design of reservoir coast changes; practical manual] Raschetny
beregovykh pereformirovani na vodokhranilishchakh; prakticheskoe
posobie. Leningrad, Gidrometeor.isd-vo, 1960. 62 p.

(MIRA 14:1)

1. Gosudarstvennyy gidrologicheskiy institut (for Kondrat'yev).
(Coast changes) (Reservoirs)

ZAYKOV, Boris Dmitriyevich, prof., doktor geograf.nauk; CHIBOTAROV,
A.I., otv.red.; SHATILINA, M.K., red.; BRAYNINA, M.I.,
tekh.red.

[Studies in limnology] Ocherki po oserovedeniю. Leningrad,
Gidrometeor.isd-vo. Pt.2. 1960. 238 p. (MIRA 13:7)
(Limnology)

URIVAYEV, V.A., kand.tekhn.nauk, red.; CHEBOTAREV, A.I., kand.tekhn.nauk, red.; VOSKRESENSKIY, K.P., kand.geogr.nauk, red.; DOMANITSKIY, A.P., kand.geogr.nauk, red.; PROTAS'YEV, M.S., kand.geogr.nauk, red.; SOKOLOVSKIY, D.L., doktor tekhn.nauk, red.; SHATILINA, M.K., red.; VLADIMIROV, O.G., tekhn.red.

[Surface water resources in regions of reclaimed virgin and idle lands] Resursy poverkhnostnykh vod raionov osvoenia tselinnykh i salesnykh zemel'. Pod obshchei red. V.A.Uryvaeva. Leningrad, Gidrometeor.isd-vo. No.5. [North Kazakhstan Province, Kazakh S.S.R.] Severo-Kazakhstanskaya oblast' Kazakhskoi SSR. 1960. 418 p. (MIRA 13:11)

1. Leningrad. Gosudarstvennyy gidrologicheskiy institut.
2. Direktor Gosudarstvennogo gidrologicheskogo instituta (for Uryvayev).

(North Kazakhstan Province--Water supply)

FEDOROV, N.N., kand.tekhn.nauk; POPOV, I.V., kand.geogr.nauk; BORSUK, O.N.,
kand.geogr.nauk; GRUSHEVSKIY, M.S., kand.tekhn.nauk; VELIKANOV,
M.A., prof., doktor tekhn.nauk, red.(Moskva); URYVAYEV, V.A., otv.
red.; ALEKIN, O.A., red.; BLIZNYAK, Ye.V., red. [deceased];
BORSUK, O.N., red.; DAVIDOV, L.K., red.; DOMANITSKIY, A.P., red.;
KALININ, G.P., red.; KRITSKIY, S.N., red.; KUDELIN, B.I., red.;
MANOIM, L.F., red.; MENKEL', M.F., red.; OILOV, B.P., red.;
PROSKURIYAKOV, A.K., red.; SOKOLOVSKIY, D.L., red.; SPENGLER, O.A.,
red.; CHEBOTAREV, A.I., red.; CHERKOVSKIY, S.K., red.; SHATILINA,
M.K., red.; VLADIMIROV, O.G., tekhn.red.

[Transactions of the Third All-Union Hydrological Congress] Trudy
III Vsesoiuznogo gidrologicheskogo s"ezda. Vol.5. [Section of
Hydrodynamics and River-Bed Evolution] Sektsiia gidrodinamiki i
ruslovykh protsessov. 1960. 421 p.

(MIRA 13:11)

1. Vsesoyuznyy gidrologicheskiy s"ezd. 3d, Leningrad, 1957.
2. Gosudarstvennyy gidrologicheskiy institut (for Fedorov, Popov).
3. Chlen-korrespondent AN SSSR (for Velikanov).
(Hydrology--Congresses)

CHEBOTAREV, Aleksandr Ivanovich; SOKOLOV, A.A., otv.red.; YASHOGORODSKAYA,
M.M., red.; BRAYNINA, M.I., tekhn.red.

[General hydrology; continental waters] Obshchaya gidrologiya;
vody суши. Leningrad, Gidrometeor.izd-vo, 1960. 539 p.
(Hydrology) (MIRA 13:9)

CHEBOTAREV, A.I.

Boris Dmitrievich Zaikov; obituary. Meteor. i gidrol. no.9:
64-65 S '61. (MIRA 14:8)
(Zaikov, Boris Dmitrievich, 1897-1961)

CHEBOTAREV, A.I.; KHARCHENKO, S.I.

Effect of autumn plowing on runoff. Trudy GGI no.82:34-49
'62. (MIRA 15:6)
(Runoff) (Plowing)

CHEBOTAREV, A.I.; GLUBOKOV, V.N.; LYLO, V.M.

"River ice conditions of the Tom' Basin" by IA. I. Marusenko.
Reviewed by A.I. Chebotarev, V.N. Glubokov, and V.M. Lylo.
Meteor. i gidrol. no.10:52-56 0 '62. (MIRA 15:9)
(Tom' Valley—Ice on rivers, lakes, etc.)
(Marusenko, IA.I.)

CHEBOTAREV, A.I., doktor tekhn. nauk; KHRACHENKO, S.I., kand. tekhn.
nauk

Methods for the estimation of possible changes in the river
runoff under the influence of agriculture. Meteor. i gidrol.
no.7227-32 JI '64 (MIRA 17:8)

1. Gosudarstvennyy gidrologicheskiy institut.

POPOV, Ye.G., doktor geograf. nauk, prof.; CHEBOTAREV, A.I., doktor
tekhn. nauk

A mountain landslide and the opening of a passage for the
water in the Zeravshan Valley. Meteor. i gidrol. no.9:
37-42 S '64. (MIRA 17:9)

1. Tsentral'nyy institut prognozov i Gosudarstvennyy
gidrologicheskiy institut.

BYKOV, Vasil'y Dmitriyevich; VASIL'YEV, Andrey Vasil'yevich;
CHEBOTAREV, A.I., otv. red.; CHEPELKINA, L.A., red.

[Hydrometry] Gidrometriia. Izd.2., perer. 1 dop. Le-
ningrad, Gidrometeoizdat, 1965. 498 p. (MIRA 19:1)

CHEBOTAREV, A. K., KUPONKOVA, G. I.

"Experience of improving the sanitary conditions of workers on
cattle-breeding sovkhozes unsafe in regard to brucellosis."

report submitted at the 13th All-Union Congress of Hygienists, Epidemiologists
and Infectionists, 1959.

ACC NR: AP6035582

SOURCE CODE: UR/0378/66/000/005/0028/0034

AUTHOR: Chebotarev, A. N.

ORG: none

TITLE: Abstract synthesis of a microprogrammed control automaton

SOURCE: Kibernetika, no. 5, 1966, 28-34

TOPIC TAGS: automaton, computer programming, machine language, machine abstracting

ABSTRACT: The abstract synthesis of a control automaton whose operating conditions are specified by a microprogram is construed as that stage of synthesis which establishes correspondence between the microprogram and the transition and output tables describing a Mealy automaton realizing a given microprogram in the manner specified by Glushkov (V. M. Glushkov. Izvestiya AN SSSR. Tekhnicheskaya kibernetika, no. 1, M., 1964, str. 3-8). Hence, tables are used as the output language of this stage of synthesis. Compared with analytic notation, table notation is somewhat ponderous, and the problem is to streamline it so as to completely exploit the additional possibilities for minimization stemming from the nature of the microprogram and so that the algorithm of transformation from the microprogram to the tables

Card

1/2

UDC: 519.95

ACC NR: AP6035582

would be simple and readily realized by means of a digital computer. The author solves this problem at the abstract level, confining his attention only to the ability of microoperations to change logic conditions in the microprogram. Algorithms used for the abstract synthesis of control automata are described and it is shown that a distinguishing feature of these algorithms is the fact that, as early as at the stage of abstract synthesis, allowance is made for both the nature of the entire microprogram and the properties of the individual microinstructions, which makes it possible to additionally reduce the weight and dimensions of equipment during the stage of structural synthesis. The stage of abstract synthesis culminates in the construction and minimization of transition and output tables. The problems associated with the coding and obtaining of excitation tables and structural output tables belong in the domain of structural synthesis and are subject to a separate investigation. Orig. art. has: 4 tables.

SUB CODE: 06, 09, ~~12~~ / SUBM DATE: 09Dec65/ ORIG REF: 002

Card 2/2

CHEBOTAREV, A. S.

"The Method of the Least Squares, Including the Fundamentals of the Theory of Probability", United Scientific and Technical Publishing Houses, M., 1936.

CHEBOTAREV, A.S., DANILOV, V.V., and KRASOVSKIY, F.N.

Course in Higher Geodesy, Parts I and II. Geodezizdat, Moscow (1938-1939)

CHEBOTAREV, A.S.

Geodetics, Part II. Geodezizdat, Moscow (1939)

FEPILOV, B.V., prof., doktor tekhn.nauk; CHEBOTAREV, A.S., prof., doktor,
red.; SHLENSKIY, I.A., tekhn.red.

[Applied optics] Prikladnaia optika. Moskva, Izd-vo geodes. i
kartograficheskoi lit-ry, 1947. 531 p. (MIRA 13:7)
(Optics)

CHEBOTAREV, ALEKSANDR STEPANOVICH

CHEBOTAREV, ALEKSANDR STEPANOVICH. Geodeziia, Dopushcheno v kachestve uchebnika dlia institutov geodezii i kartografii. Moskva, Izd-vo geodez. i kartograf. lit-ry, 1948- v. illus., maps (part fold) diags. 27 cm. DLC: QB301.C55

SO: LC, Soviet Geography, Part I, 1951, Uncl.

KUZIN, N.A.; LEBDEV, M.N.; CHEBOTAREV, A.S., redaktor; INOZEMTSEVA, A.I.,
redaktor; SHLEPSKIY, I.A., tekhnicheskiy redaktor.

[Practical manual on municipal and engineering trigonometrical
surveying] Prakticheskoe rukovodstvo po gorodskoi i inzhenernoi
poligonometrii. Pod red. A.S.Chebotareva. Izd. 2-e, ispr. i dop.
Moskva, Izd-vo geodesicheskoi lit-ry, 1954. 478 p. (MLBA 8:2)
(Triangulation)

CHEBOTAROV, Aleksandr Stepanovich, professor; zaslushennyi deyatel' nauki
i tekhniki, doktor tekhnicheskikh nauk; SUDAKOV, S.G., redaktor;
INOZEMTSOVA, A.I., redaktor; KUZ'NICH, G.M., tekhnicheskii redaktor.

[Geodesy] Geodesia. Izd. 2008, ispr. Moskva, Izd-vo geodesi-
cheskoi lit-ry. Pt. 1, 1955. 626 p. (MLRA 8:12)
(Geodesy)

CHEBOTAROV, A.S., prof.

Successes and future problems of the Soviet geodetic science.
Trudy MIIGAIK no.22:3-25 '56. (MIRA 13:4)

1. Kafedra geodesii Moskovskogo instituta inzhenerov geodesii,
aerofotos"yenki i kartografii.
(Geodesy)

CHEBOTAREV A. S.

AUTHOR:

Chebotarev, A.S., Doctor of Technical Sciences

6-10-1/12

TITLE:

Problems of the Measuring Error Theory which are of Topical Interest (Aktual'nyye sovremennyye voprosy teorii oshibok izmereniy)

PERIODICAL:

Geodeziya i Kartografiya, 1957, Nr 10, pp 3-11 (USSR)

ABSTRACT:

It is pointed out that for the evaluation of measuring accuracy the formulae by Gauss and Bessel are used, which are applicable to a large number of measurements. As, in reality, this number is relatively not large, it is recommended to use the formula destined for this purpose by Gauss, according to which it is possible to determine the average square of errors:

$$m_1 = \pm \frac{1}{\sqrt{2(n-1)}}$$

The author cannot understand why this formula is not being used either in the USSR or in other countries for geodetical work. In connection with geodetical work the following is criticized as a further drawback: The law of the propagation of random errors is calculated to apply to "independent" random errors committed in measuring the various quantities. It is, however, usually assumed on this occasion that, even though these errors are random errors, they are also independent. In reality, however, this is not the case, particularly if two or more quanti-

Card 1/2

Problems of the Measuring Error Theory which are of Topical Interest 6-10-1/12

ties are measured at approximately the same time. It is pointed out that the problem of "independent" rows of pairs of random errors must be seriously taken into account by geodesists. Several corrections for the computation of constant systematic and unilaterally acting errors are mentioned and a formula for practical use is derived. In this connection attention is drawn to the reciprocal binding of the measured measuring pairs and to the expression correlation which is usual for this conception in mathematical statistics and which is explained in detail. The conceptions "correlation ratio", the "regression curve", and "multiple correlation" are dealt with in detail, and it is pointed out that multiple correlation is concerned whenever a phenomenon is to be investigated in dependence on the simultaneous action of temperature, pressure, and air moisture. It is recommended to make use of the theory of correlation in the case of problems dealing with the theory of measuring errors. In this connection it is of importance to have sufficient knowledge of the dispersion analysis.

Library of Congress

AVAILABLE:
Card 2/2

CHEBOTAREV, A. S.

AUTHOR: Chebotarev, A. S., Doctor of Technical Sciences. 6-12-1/14

TITLE: The Deviation-Analysis and the Part Played by it in the Utilization of Data From Geodetical Surveying (Dispersionnyy analiz, yego rol' pri obrabotke rezul'tatov geodezicheskikh izmereniy).

PERIODICAL: Geodeziya i Kartografiya, 1957, Nr 12, pp. 3 - 14 (USSR).

ABSTRACT: At first the foundations of the deviation-analysis are given here. This method which is employed in mathematical statistics is here given on the basis of the theory of errors of measurement and not on that of mathematical statistics. A number of quantities is measured under equal conditions (measurements of equal accuracy). The measured quantities among one another are all equal (one and the same quantity can be measured several times, but only under the condition that the dimensions of this quantity remain invariable. Such measurements are carried out in rows and series. The number of quantities measured may be different in every series, but the accurate values of these quantities must be invariable during the measurement of all series. The errors of every measurement have an accidental character. For the evaluation of the accuracy of the measurements three formulae are derived according to which s_0 , s_1

Card 1/3

The Deviation-Analysis and the Part Played by it in the
Utilisation of Data From Geodetical Surveying.

6-12-1/14

and s_2^2 can be found. s_2^2 is the mean from the (s^2) -squared deviations between the systems, s_1^2 - the mean from the (s^2) -squares of the total deviation. In a large number of measurement series these three are very close in quantity which would as a whole confirm an equal deviation of the measurement results as well according to series as in the complex. The condition on the equality of the accurate values of measured quantities and on the invariability of them is called the zero-hypothesis. In reality it may become evident that the zero-hypothesis is incorrect. Fischer (reference 5) worked out a special table by which it is possible to determine whether the zero-hypothesis in reality is correct or incorrect. - The second part of the present paper deals with the work of the Egyptian expert A. M. Wassef (reference 7). He made one of the few attempts to use the deviation-analysis in geodesy. It is shown here that the formula derived by Wassef for s_L^2 (Wassef calls this quantity the variability/deviation/ between the lines) is not correct, as the correlations between the variables were not taken into account. Nevertheless Wassef's attempt deserves special attention.

Card 2/3

The Deviation-Analysis and the Part Played by it in the
Utilization of Data From Geodetical Surveying.

6-12-1/11

There are 4 tables, and 9 references, 1 of which is Slavic.

AVAILABLE: Library of Congress.

Card 3/3

CHEBOTAREV, A.S., prof., red.; ROMANOVA, V.V., tekhn.red.

[Coordinate increase tables] Tablitsy prirashchenii koordinat.
Izd. 3-e, dop. Moskva, Izd-vo geodez. lit-ry, 1958. 156 p.
(MIRA 11:5)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye geodesii i karto-
grafii. (Geodesy--Tables, etc.)

PHASE I BOOK EXPLOITATION

673

Chebotarev, Aleksandr Stepanovich

Sposob naimen'shikh kvadratov s osnovami teorii veroyatnostey (Method of Least Squares With the Fundamentals of the Theory of Probability) Moscow, Geodezizdat, 1958. 605 p. 9,000 copies printed.

Ed.: Vysotskiy, A.N.; Ed. of Publishing House: Inozemtseva, A.I.;
Tech. Ed.: Romanova, V.V.

PURPOSE: This book is approved as a textbook for students of surveying vuzes in the USSR.

COVERAGE: The book discusses in detail a theory of errors, the method of least squares and fundamentals of the probability theory. The presentation of the method of least squares is based on the principle of maximum weight. Special attention is paid to surveying problems. Many examples from industry and research are analyzed. The fundamentals of matrix calculus in connection with its application to the method of least squares are given. The author thanks Docent D.S. Shein (Deceased), Professor K.L. Provorov, the Deputy

Card 1/19

Method of Least Squares (Cont.)

673

Head of the Surveying Department of the VIKA (Voyenno-inzhenernaya akademiya imeni kuybysheva - Military Engineering Academy imeni Kuybyshev), B.S. Kuzmin and Senior Lecturer Docent A.N. Vysotskiy for help in preparing the book. There are 237 references, 192 of which are Soviet (including 34 translations), 22 German, 12 French 5 English, 1 Bulgarian, 1 Czech, 1 Polish, and 1 Croatian.

TABLE OF CONTENTS:

| | |
|-----------------------------------------------------------------------|----|
| Preface | 3 |
| Introduction | 6 |
| PART I. THE THEORY OF ERRORS OF MEASUREMENTS | |
| Ch. I. Basic Concepts in the Theory of Errors of Measurements | |
| 1. Law of random errors of measurements revealed by experimental data | 33 |
| 2. Properties of random errors of measurements | 38 |
| 3. Peculiarities of rounding-off errors | 41 |
| Card 2/19 | |

MOBRINSKIY, Nikolay Ivanovich; CHEBOTAREV, A.S., prof., doktor tekhn.
nauk, red.; KHROMCHENKO, P.I., red.isd-va; ROMANOVA, V.V.,
tekhn.red.

[Use of "krakowiany" tables in geodetic calculations] Prime-
nenie krakovianov v geodesicheskikh vychisleniyakh. Pod red.
A.S.Chebotareva. Moskva, Isd-vo geodes.lit-ry, 1959. 179 p.

(MIRA 12:8)

1. Zaveduyushchiy kafedroy geodesii Moskovskogo instituta inzhenerov
geodesii, aerofotos"yenki i kartografii (for Chebotarev).
(Surveying--Tables, etc.)

3(4)

SOV/154-59-3-2/19

AUTHOR: Chebotarev, A. S., Professor, Doctor of Technical Sciences

TITLE: Theory of Measurement Errors and the Method of the Least Squares
(Teoriya oshibok izmereniy i sposob naimen'shikh kvadratov)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Geodeziya i aerofoto"-
yemka, 1959, Nr 3, pp 9 - 22 (USSR)

ABSTRACT: For 150 years the theory of measurement errors and the method of the least squares have been varied in all possible ways. Experts of mathematical statistics joined these deliberations. The author is of opinion that it would be high time to clarify the contradictions which have arisen due to these procedures and to establish a system of the calculus of observations which are very important to the surveyor. As a result of the work he did in this field the author is editing a monograph whose first part is already being printed and will be published in the volumes of the MIIGAIK. A survey of the main problems of the present-day theory of measurement errors and the method of the least squares is given below. Firstly, the Gauss theory is mentioned. By means of formula (12) Gauss evaluated the reliability quotient for accuracy determinations of measurements. Oddly,

Card 1/4

Theory of Measurement Errors and the Method of the Least Squares SOV/154-59-3-2/19

this formula is never applied and not even mentioned in geodesy. In geodesy the root of the mean square error is determined from formula (8). This only applies to measurements carried out with equal accuracy. It is pointed out that the book published in the USA in 1956 (Ref 4) only complicates this question. Likewise, Student's method is no remedy. Two kinds of mean values have to be considered: that of surveyors and that of statisticians. It is shown that, even though the theory of measurement errors and the method of the least squares are interrelated, a fundamental difference exists between the two. The method of the least squares is investigated from the point of view of the theory of measurement errors and afterwards from that of statistics. It is shown that in the first case essential problems in the theory of measurement errors can be solved, but that in the second case, in statistics, absolutely reliable and final results are not necessarily obtained by the method of the least squares. It is pointed out that the method of the least squares is an essential part of the theory of measurement errors and not a simple mathematical device which can be replaced at will by another one. This, however, only

Card 2/4

Theory of Measurement Errors and the Method of the Least Squares SOV/154-59-3-2/19

applies if the measurement results contain only incidental errors and if these measurements are not connected with each other (i.e. connections of the measurement results and not of the actual values of the quantities investigated which are expressed by means of a conditional equation). In this case the initial data have to be accurate and the equations connecting the unknown quantities mathematically correct. The wrong conception of R. Fisher (Ref 11) expressed in his "method of maximum likelihood" is pointed out. Reference is made to the dispersion analysis developed by Fisher, and critiques by A. N. Kolmogorov (Ref 13) and Professor A. Ya. Boyarskiy (Ref 13) concerning this analysis are mentioned. The author of the present paper has already published a study (Ref 14) on dispersion analysis and its application in the field of geodesy. There are 14 references, 11 of which are Soviet.

ASSOCIATION: Moskovskiy institut inzhenerov geodezii, aerofotos"yemki i kartografii (Moscow Institute of Geodetic, Aerial Survey and Cartographic Engineers)

Card 3/4

CHETARAS

SON/6-29-7-25/25

3(2), 3(4)
AUTHOR:

None Given

TITLE:

Chronicle (Khronika)

PERIODICAL:

Geodesiya i Kartografiya, 1959, Nr 7, p 96 (USSR)

ABSTRACT:

From May 27 to June 1, a conference dedicated to the history of science and technology took place in Moscow. It was organized by the Institute of History of Natural Science and Technology of the Academy of Sciences of the USSR and the Soviet Academy of Sciences. The following reports were delivered at the meetings of the Section of Geologic-geographic Sciences: S. I. Fel', "Russia's Cartography in the 18th Century"; S. G. Iremyan, "Topographic Map of Armenia Compiled in the 18th and Beginning of the 19th Century"; M. K. Kobayashi, "Development of Cartography"; A. A. Chubakov, "History of the Application of the Method of Least Squares in Geodesy"; M. K. Ventshal', "Development of Accurate Methods of Astronomic Determinations

Card 1/2

in the Field"; M. K. Avdeyev, B. D. Izrael, "Development of Light Location (Svetolokatsiya) in the USSR"; A. E. Lohman, "Development of Electronic Methods in Photogrammetry"; F. V. Rebyzhik, "History of the Building of Photogrammetric Apparatus in the Soviet Union".

Card 2/2

CHEBOTAREV, A.S., prof., doktor tekhn.nauk

Mathematical statistics. Izv. vys. ucheb. zav.; geod. i aerof. no.2:
61-72 '60. (MIRA 13:6)

1. Moskovskiy institut inzhenerov geodezii, aerofotos"yemki i
kartografii.

(Mathematical statistics)

CHEBOTAREV, A.S., prof.

Adjustment computations in geodetic operations. Trudy NIIGAIK
no.40:3-74 '60. (MIRA 13:11)

1. Kafedra geodesii Moskovskogo instituta inzhenerov geodesii,
aerofotos"yemki i kartografii.

(Errors, Theory of)

S/035/62/000/008/055/090
A001/A101

AUTHOR: Chebotarev, A. S.

TITLE: On the history of development of the least-square method

PERIODICAL: Referativnyy zhurnal, Astronomiya i Geodeziya, no. 8, 1962, 7,
abstract 8G60 (In collection: "Vopr. istorii yestestvozn. i tekhn.";
no. 11, Moscow, AN SSSR, 1961, 20 - 28)

TEXT: A brief information is given on the publications by Legendre, Gauss
and Laplace, and on the development of the least-square method in Russia. The
former objections (RZhAstr, 1960, no. 12, 12804) are repeated against the sub-
stantiation of the least-square method by the principle of maximum plausibility. ✓
There are 12 references.

O. Sh.

[Abstracter's note: Complete translation]

Card 1/1

S/035/61/000/006/033/044
A001/A101

AUTHOR: Chebotarev, A.S.

TITLE: Successes and tasks of the Soviet geodetic science

PERIODICAL: Referativnyy zhurnal. Astronomiya i Geodeziya, no. 6, 1961, 6, abstract 6046 ("Tr. 2-go s"yezda Vses. astron.-geod. o-va, 1955", Moscow, AN SSSR, 1960, 91 - 100)

TEXT: The author lists the greatest achievements of the Soviet geodetic science and technology. He points out that the following tasks are the next scientific tasks: the creation of the proper geodetic foundation for the large-scale cartography of the country; development of gravimetric surveys on the continent and oceans; the study of the levels of the seas surrounding the territory of the USSR and the movements of the Earth's crust; large-scale use in geodesy of achievements of modern physics; further improvement of methods of geodetic works and instruments; mechanization and automation of production. Moreover, it is necessary to pay serious attention to the study of the history of geodesy, the establishment of unified geodetic terminology, and development of scientifically substantiated norms of geodetic operations.

V. Selikhanovich

[Abstracter's note: Complete translation]

Card 1/1

CHEBOTAREV, A.S.

How the method of least squares was developed. Vop.ist.est. i
tekh. no.11:20-28 '61. (MIRA 14:11)
(Least squares)

CHEBOTAREV, Aleksandr Stepanovich, prof.; SELIKHANOVICH, Valeriya
Georgiyevna, dots.; SOKOLOV, Mikhail Nikolayevich, dots.;
KHROMCHENKO, F.I., red.isd-va; SUNGUROV, V.S., tekhn. red.

[Surveying]Geodesia. Pod obshchei red. A.S.Chebotareva. Mo-
skva, Geodesisdat. Pt.2. 1962. 613 p. (MIRA 16:3)
(Surveying)

ABRAMOVICH, V.V.; CHEBOTAREV, A.V.

Cooking grape jelly in a vacuum apparatus. Kons. i ov. prom.
14 no.6:12 Je '59. (MIRA 12:8)

1. Bykovetskiy plodokonservnyy zavod.
(Grapes) (Jelly)

GRINEVICH, Feodosiy Borisovich; CHEBOTAREV, Anatoliy Vladimirovich;
NOVIK, Anatoliy Ivanovich; SHUMILOVSKIY, N.N., otv. red.;
SKRIPKINA, Z.I., red. izd-va; POPOVA, M.G., tekhn. red.

[Elements and networks of experimental a.c. digital bridges]
Elementy i skhemy tsifrovyykh ekstremal'nykh mostov peremen-
nogo toka. Frunze, Izd-vo AN Kirg.SSR, 1963. 141 p.
(MIRA 17:1)

SEMISALOV, L.P.; LOBOV, A.A.; AMTISLAVSKIY, D.M.; VEKSEL'MAN, Z.N.;
CHEBOTAREV, A.V.

Effect of the shape of coke pieces on some indices of size. Koks
1 khim. no.9:33-37 '63. (MIRA 16:9)

1. Ukrainskiy uglekhimicheskiy institut (for Semisalov, Lobov).
2. Zhdanovskiy koksokhimicheskiy zavod (for Amtislavskiy).
3. Koksokhimstantsiya (for Veksel'man, Chebotarev).
(Coke--Testing)

L 28747-65 EWT(1)/EPR/EWA(m)-2/EWA(h) Ps-4/Peb W#

ACCESSION NR: AT5003154

S/3005/64/000/009/0051/0057

AUTHOR: Grinevich, F. B.; Novik, A. I.; Chebotarev, A. V.

TITLE: A peak detector for a capacitive, self-compensating level gauge

SOURCE: AN SSSR. Sibirskoye otdeleniye. Institut avtomatiki i elektrometrii. Trudy, no. 9, 1964. Elektricheskiye metody avtomaticheskogo kontrolya (Electric methods of automatic control), 51-57

TOPIC TAGS: peak detector, level gauge, selfcompensating level gauge, automatic control, capacitive level gauge

ABSTRACT: The level gauge, described by the authors in a previous article (Izmeritel'naya tekhnika, 1961, No. 10), is essentially a six-arm bridge circuit with tight inductive coupling between the arms. The bridge is balanced with respect to one measured parameter by varying the number of turns in its inductive arm. The purpose of the peak detector is to detect the minimum of the bridge output voltage. The block diagram of the peak detector is shown in Fig. 1 of the Enclosure. After amplification (1), the envelope of the bridge output voltage is detected (2) and sampled (3,4). The sampler (3) is operated by the blocking oscillator (4), which is triggered by clock pulses. The purpose of the sampler is to eliminate the

Card 1/3

L 28747-65

ACCESSION NR: AT5003154

transient signals due to switching of the number of turns in the bridge coils. The sampled signal is differentiated by (5). When the bridge is unbalanced, the output of the differentiator consists of pairs of pulses of alternating polarity. The logic gate (6,7) is only sensitive to a pair of successive negative pulses and will pass the control signal only in this case. When the bridge imbalance is large and the amplifier (1) saturates, the DC level of the detector (2) is used to open the gate (8) and deliver the clock pulses directly to the control servo until a coarse balance is achieved. The peak detector can be used in automatic AC bridge circuits which are balanced with respect to one parameter. Orig. art. has: 3 figures.

ASSOCIATION: Institut avtomatiki i elaktrometrii, Sibirskoye otdeleniye AN SSSR
(Automation and electrometrics institute, Siberian division, AN SSSR)

SUBMITTED: 22Aug62

ENCL: 01

SUB CODE: IE,EE

NO REF SOV: 003

OTHER: 000

Cord 2/3

L 28747-65

ACCESSION NR: AT5003154

ENCLOSURE: 01

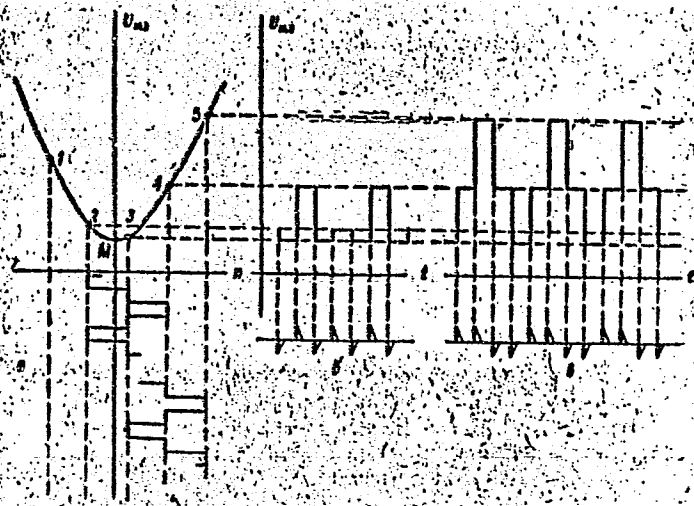


Figure 1. Block diagram of the peak detector.

Card 3/3

L 54586-65

EWT(d)/EWT(1)/EEC(m)/EWA(d)/EWP(v)/EPR/EWF(k)/EWF(h)/EWF(1)/

~~EWA(h)~~ Po-4/Pq-4/Pf-4/Ps-4/P1-4 WW/GS

ACCESSION NR: AT5009800

UR/0000/64/001/000/0063/0068

AUTHOR: Grinevich, F. B. (Novosibirsk); Novik, A. I. (Novosibirsk);

Chebotarev, A. V. (Novosibirsk)

TITLE: Synthesizing digital capacitance-type self-compensated level indicators 2/1 1341 26

SOURCE: Vsesoyuznaya konferentsiya po avtomaticheskomu kontrolyu i metodam elektricheskikh izmereniy. 4th, Novosibirsk, 1962. Avtomaticheskii kontrol' i metody elektricheskikh izmereniy; trudy konferentsii, t. 1: Metody elektricheskikh izmereniy. Tsifrovyye izmeritel'nyye pribory. Elementy izmeritel'nykh sistem (Automatic control and electrical measuring techniques; transactions of the conference, v. 1: Electrical measuring techniques. Digital measuring instruments. Elements of measurement systems). Novosibirsk, Redizdat Sib. otd. AN SSSR, 1964, 63-68

TOPIC TAGS: level indicator, liquid level gauge 14

ABSTRACT: Based on a six-arm-bridge two-compensating-sensor principle (K. B. Karandeyev et al., "Capacitive level gauge," Author's Certificate no. 146521, class 42e, 34, of 19May61), digital high-accuracy liquid-level gauges are

Card 1/2

L 54586-55

ACCESSION NR: AT5009800

considered. The bridge is balanced by a servo system that includes reversible pulse counters. The inductance of the bridge arms is controlled by counter triggers in such a way that the condition of the bridge circuit is one-to-one connected with the condition of the reversible counter. A binary-decimal counter operating with a self-complementary code is recommended; in this case, the counter decade is turned into a tetrad that contains four triggers with different assigned weights. As the phase-sensitive detection and selective amplifier may bring about considerable errors due to phase distortions, the use of the extremal control principle (balancing by the minimum bridge output voltage) is recommended. An experimental model had an overall error of 0.7% and a maximum balancing time of 1.5 sec. Orig. art. has: 3 figures.

ASSOCIATION: none

SUBMITTED: 25Sep64

ENCL: 00

SUB CODE: IE

NO REF SOV: 006

OTHER: 001

Card 2/2

L 28748-65 EWT(1) Feb

ACCESSION NR: AT5003155

S/3005/64/000/009/0067/0072

21

AUTHOR: Grinevich, F. B.; Chebotarev, A. V.

20

8+1

TITLE: Bidirectional binary-decimal counter for electrical digital servo instruments

25

SOURCE: AN SSSR. Sibirskoye otdeleniye. Institut avtomatiki i elektrometrii. Trudy, no. 9, 1964. Elektricheskiye metody avtomaticheskogo kontrolya (Electric methods of automatic control), 67-72

TOPIC TAGS: automatic control system, electrical servo system, digital servo instrument, binary decimal counter, bidirectional counter, electronic counter, binary decimal converter

ABSTRACT: Electronic counters are required in high speed digital instruments for balance control. A true bidirectional binary counter requires a binary to decimal converter, because the readout of most instruments is in decimal scale. Since, for a large number of digits, the converters become uneconomical, a binary-decimal reversible counter must be used. The author proposes a design of such a counter which consists of separate stages that can be cascaded for large numbers of digits.

Card 1/2

L 28747-65

ACCESSION NR: AT5003155

Each stage consists of 4 counting flip-flops, one flip-flop for count reversal, 8 "and" gates and 4 "or" gates. The counting flip-flops have one input and two outputs and the reversal flip-flop has two outputs which control the "and" gates and two inputs for reversal signals. Forward and reverse counts are obtained by a combination of pulse shifting and feedback. The counter works on a self-complementary binary-decimal code with weights 1, 2, 4, 2. Feedback connections are used in reverse count but do not have to be disconnected during the forward count. The direction of the count can be changed at any time and the decimal number which corresponds to the state of the counter at that time can be determined from the code 1,2,4,2. To obtain an n-digit decimal bidirectional counter it is necessary to use n binary - decimal stages, all controlled by one reversal flip-flop. The use of decimal bidirectional counters in electrical digital servo measuring systems not only increases the speed of such devices but also their reliability. Orig. art. has: 3 figures.

ASSOCIATION: Institut avtomatiki i elektrometrii, Sibirskoye otdeleniye AN SSSR
(Automation and electrometrics institute, Siberian division, AN SSSR)

SUBMITTED: 04Apr62

ENCL: 00

SUB CODE: IE, EC

NO REF SOV: 005

OTHER: 002

Card 2/2

L 28749-65 EWT(d)/EWT(1)/EED-2/EWP(1)/EWA(h) Po-4/Pq-4/Pg-4/Pk-4/Peb IJP(c)
BB/GG

ACCESSION NR: AT5003156

S/3005/64/000/009/0073/0079

AUTHOR: Grinevich, F. B.; Chebotarev, A. V.

TITLE: Decoders for a binary-decimal bidirectional counter

SOURCE: AN SSSR. Sibirskoye otdeleniye. Institut avtomatiki i elektrometrii. Trudy, no. 9, 1964. Elektricheskiye metody avtomaticheskogo kontrolya (Electric methods of automatic control), 73-79

TOPIC TAGS: bidirectional counter, binary decimal counter, decoder, automatic control system, electronic counter, binary decimal converter

ABSTRACT: The author has designed four types of binary-decimal converters to be used with the binary-decimal counter described on a previous occasion (pp. 67-72 of this publication). Each converter has 10 outputs and 8 inputs, the inputs being connected directly to the flip-flops of the counter stage. The design utilizes a combination of the simple features of tapered relay decoders and the compactness of the diode matrix decoders. The first converter is of the tapered relay variety. A relay taper, controlled by the two lowest digits of the counter stage, selects one of the four groups of the diode matrix according to the state of the counter. A complete converter requires only 12 diodes, 3 relays and 10 resistors. The second

Card 1/2

L 28749-65

ACCESSION NR: AT5003156 /

variety of tapered relay decoder utilizes the division of the diode matrix into 2 identical groups, one for even and one for odd digits. The groups are selected by a relay which is controlled by the lowest binary digit of the counter stage. The total number of diodes is 20. Essentially the same type of decoder is then designed without relays, using 22 diodes and 15 resistors. The last type of decoder considered is of the matrix group type. In this decoder the signal to each group of the diode matrix is fed from a preliminary matrix decoder. The total decoder requires 20 diodes and 15 resistors of 2 different values. Orig. art. has: 4 figures and 2 tables.

ASSOCIATION: Institut avtomatiki i elektrometrii, Sibirskoye otdeleniye AN SSSR (Automation and electrometrics institute, Siberian division, AN SSSR)

SUBMITTED: 22Jun62

ENCL: 00

SUB CODE: IE, DP

NO REF SOV: 003

OTHER: 001

Card 2/2

GRINEVICH, F.B.; CHEBOTAREV, A.V.; NOVIK, A.I.

Elements of digital optimizing a.c. bridges. Trudy Inst. avtom.
i elektrometr. SO AN SSSR no.10:29-37 '65.

(MIRA 18:8)

ACC NR: AP5026794

SOURCE CODE: UR/0286/65/000/017/0075/0075

AUTHOR: Grinevich, F. B.; Novik, A. I.; Chebotarev, A. V. 33
B

TITLE: A digital storage-level gauge. Class 42, No. 174385 [announced by Institute of Automation and Electrometry, Siberian Department AN SSSR (Institut avtomatiki i elektrometrii Sibirskogo otdeleniya AN SSSR)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 17, 1965, 75

TOPIC TAGS: liquid level indicator, electronic measurement, digital system

ABSTRACT: ²⁵ This Author's Certificate introduces a digital storage-level gauge which contains three capacitance pickups connected in a measurement bridge circuit with strong inductive coupling between the arms. The instrument also has a discrete device for balancing the bridge circuit. Measurement accuracy is increased by connecting to the discrete balancing device a modulator which varies the output voltage of the bridge circuit by switching the number of turns in the coils of the inductive arms.

UDC: 681.128.63

Card 1/2

L 6997-66

ACC NR: AP5026794

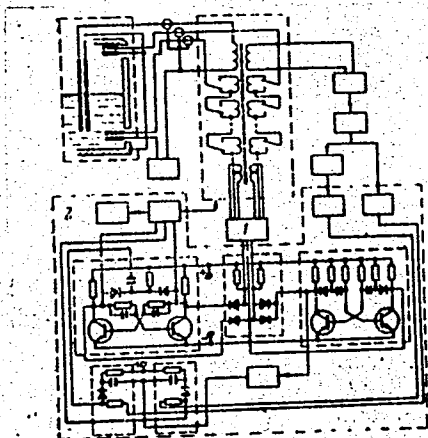


Fig. 1. 1--modulator; 2--device for balancing the bridge circuit.

SUB CODE: EC,DP/ SUBM DATE: 26Jul63/ ORIG REF: 000/ OTH REF: 000

Card 2/2 *nds*

L 9664-66

ACC NR: AP5026507

SOURCE CODE: UR/0286/65/000/019/0038/0039

AUTHORS: Grinevich, F. B.; Chebotarev, A. V.; Novik, A. I.

24
B

ORG: none

TITLE: Automatic digital extremal ac bridge. Class 21, No. 175126 [announced by Institute of Automation and Electrometry SO AN SSSR (Institut avtomatiki i elektrometrii SO AN SSSR)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 19, 1965, 38-39

TOPIC TAGS: capacitance bridge, digital system

ABSTRACT: This Author Certificate presents an automatic digital extremal a-c bridge for measuring the capacitance and loss tangent of capacitors. The bridge contains an oscillator supplying the measuring bridge circuit, an equilibrium detector, two reversible counters with corresponding decoders and readout devices for the two measured parameters, a time selector of the controlling effects for the two parameters consisting of a multivibrator and two coincidence circuits, and two modulators for pulse modulation of the regulated parameters of the bridge circuit. To increase the response rate, each of the modulators is connected to a

Card 1/2

UDC: 621.317.733.011.4

2

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ACC NR: AP5026507

corresponding reverse trigger which controls the modulation polarity and count direction of the corresponding reversible counter (see Fig. 1).

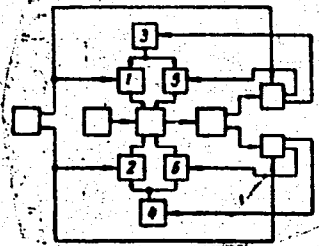


Fig. 1. 1 and 2 - Modulators;
3 and 4 - reverse triggers;
5 and 6 - reversible counters.

Orig. art. has: 1 diagram.

SUB CODE: 09/

SUBM DATE: 21Oct63

Card 2/2

ACC NR: AR6027133

SOURCE CODE: UR/0272/66/000/004/0140/0140

AUTHOR: Chebotarev, A. V.; Nebolyubov, Ye. Yu.

TITLE: Determining the sensitivity of digital bridge circuits with inductive arm coupling

SOURCE: Ref. zh. Metrologiya i izmeritel'naya tekhnika, Abs. 4.32.1017

REF SOURCE: Sb. Datchiki i skhemy vlagomerov i urovnerov dlya neftekhim. prom-sti. Frunze, Ilim, 1965, 23-32

TOPIC TAGS: electric device, electric measuring instrument, digital system

ABSTRACT: The problem is considered of determining and analyzing the absolute sensitivity of bridge circuits inductively coupled with respect to the controlled parameter, i.e., with respect to the number of turns in the controlled bridge arm. It is shown that in such bridge circuits, which operate in the near resonance region, a permanent absolute sensitivity with respect to the number of turns in the controlled winding can be obtained. This property is important in the case of digital bridges. [Translation of abstract] Bibliography of 4 titles. P. Agaletskiy

SUB CODE: ~~B~~ 09

Card 1/1

UDC: 53.089.52:621.317.733

~~CHEBOTAREV, A. Ya.~~, dotsent

Case of grave injury inflicted by a bear. Stomatologia 35 no.5:51
S-O '56 (MLRA 10:4)
(FACE--WOUNDS AND INJURIES)

CSEBOTAREV, A.Sz. [Chebotarev, A.S.] prof. (USSR); LEBEDEV, N.N., a muszaki tudományok kandidátusa, docens (USSR); ZELCSENYI, Geza (Hungary)

Soviet remarks about our 1st special issue. Geod kart 14
no.3:199-200 '62.

CHEBOTAREV, B.A., gornyy inzh.

Improvement of boring and blasting operations. Gor.zhur. no.2:
36-38 F '64. (MIRA 17:4)

1. Nachal'nik burovzryvnykh rabot rudnika imeni XXII s"yezda
Kommunisticheskoy partii Sovetskogo Soyuza.

YEROFEYEV, I.Ye., gornyy inzh.; CHEBOTAREV, B.A., gornyy inzh.

Means of preventing the damaging of deep boreholes in large-scale blasting. Gor. zhur. no.2:38-40 F'62. (MIRA 17:2)

1. Masylyanskiy rudnik, g. Zyryanovsk.

GREBENYUK, V.A., gornyy inzhener; YEROFEYEV, I.Ye., gornyy inzhener;
PUSTOVALOV, A.I., gornyy inzhener; CHEBOTAREV, B.A., gornyy
inzhener

Use of distributed charges in drifting. Gor. zhur. no.1:70-71
Ja '62. (MIRA 15:7)

1. Zyryanovskiy svintsovyy kombinat.
(Zyryanovsk District--Blasting)
(Mining engineering)

GLADYSHEV, B., kand.tekhn.nauk; BORT, G.; DYUZHENKO, M., inzh.; CHEBOTAREV, D.

Experimental manufacturing of three-dimensional elements by
guniting. Zhil. stroi. no.7:26-27 '62. (MIRA 15:9)

1. Zaveduyushchiy kafedroy Khar'kovskogo instituta inzhenerov
kommunal'nogo stroitel'stva (for Gladyshev). 2. Glavnyy
inzhener Ordена Lenina stroitel'no-montazhnogo tresta No.86
(for Bort). 3. Glavnyy tekhnolog Ordена Lenina stroitel'no-
montazhnogo tresta No.86 (for Chebotarev).

(Precast concrete construction)

SHUPIK, P.; LAVRIK, S.; SHUMADA, I.; LESHCHENKO, P.; MEDYANIK, R.; RADCHENKO, P.;
PANCHENKO, V.; YESINENKO, L.; CHEBOTAREV, D.; BRATUS', V.; ISHCHENKO, I.;
KOMISSARENKO, I.; KOLOMIYCHENKO, I.; MAKARCHENKO, A.; ARUTYUNOV, A.;
SKRIPNICHENKO, D.; RODZAYEVSKIY, A.; PAVLENKO, K.; LEONENKO, K.;
KOZYRENKO, N.; PARKHOMENKO, V.; CHEREN'KO, M.

Aleksandr Kirillovich Gorchakov; obituary. Vrach. delo no.8:144-145
Ag '60. (MIRA 13:9)

(GORCHAKOV, ALEKSANDR KIRILLOVICH, 1900-1960)

1. CHEBOTAR ~~EV~~, D. F.
2. USSR 600
4. Pregnancy
7. Hypoxemia in hypertensive toxicoses in pregnancy, Medich. zhur, 21, No. 2, 1951.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

CHEBOTAR'OV, D.F., kand.med.nauk

Change in nitrogen metabolism during pregnancy. Medych.zhur. 21
no.6:55-64 '51. (MIRA 11:1)

1. Z viddilu klinichnoi meditsini (zav. - akad. M.D.Strazhesko)
Institutu klinichnoi fiziologii im. akad. O.O.Bogomol'tsa AN URSS
(direktor - diyaniy chlen AN URSS R.Ye.Kavets'kiy) i viddilu
patologii vagitnosti (zav. - V.A.Khatuntsev) Ukrains'kogo insti-
tutu klinichnoi meditsini (direktor - akad. M.D.Strazhesko).
(NITROGEN METABOLISM) (PREGNANCY)

CHEBOTAREV, D.F.

MIKHNEV, A.L.; CHEBOTAREV, D.F.

**Member of the Academy N.D. Strashenko; 75th anniversary. Klin.med.,
Moskva 29 no.12:16-21 Dec 51. (CML 21:4)**

1. Prof. Mikhnev; Candidate Medical Sciences Chebotarev. 2. Kiev.

CHEBOTAREV, D. F.

Kidneys - Diseases

Renal function in pregnancy nephritis., Klin. med., 29, no. 12, 1952

9. Monthly List of Russian Accessions, Library of Congress, March 195~~5~~, 2Incl.

CHEBOTAREV, D. F.

"Hypertensive Syndrome in Pregnancy (Eclampsia)." Dr Med Sci, Inst of
Clinical Physiology, Acad Sci Ukrainian SSR, Kiev, 1953. (RZhBiol, No 7, Dec 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher
Educational Institutions (12)
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CHEBOTAREV, D.F.

Dynamics of arterial pressure in late pregnancy toxemia. Akush. gin.
no.3:15-21 May-June 1953. (GIML 25:1)

1. Candidate Medical Sciences. 2. Of the Ukrainian Institute of
Clinical Medicine imeni Academician N. D. Strashenko (Director -- Prof.
A. L. Mikhnev) and of Kiev Institute for the Advanced Training of Phy-
sicians (Director -- Prof. I. I. Kal'chenko).

CHEBOTAREV, D.F.

STRAZHESKO, Nikolay Dmitriyevich; AYZENBERG, A.A., professor, redaktor;
YEVYUKHOVA, M.L., dotsent, redaktor; KAVETSKIY, P.Ye., professor,
redaktor; LIOZINA, Ye.M., dotsent, redaktor; MIKHNEV, A.L.,
professor, otvetstvennyy redaktor; PRIMAK, F.Ya., professor,
redaktor; SAYKOVA, V.V., dotsent, redaktor; CHEBOTAREV, D.F.,
professor, redaktor; YANOVSKIY, D.N., professor, redaktor;
SHKHEIN, M.I., redaktor isdatel'stva; RAHELINA, N.P., tekhnicheskii
redaktor.

[Selected works] Izbrannye trudy. Kiev, Izd-vo Akademii nauk
USSR. Vol.1. [Problems in the pathophysiology of the circulation
of the blood] Problemy patofiziologii krovoobrashchenia. 1955. 398 p.
Vol.2. [Problems of sepsis, endocarditis, rheumatism, physiology
and pathology of the organs of digestion] Problema sepsisa, endokardita,
revmatizma, fiziologii i patologii organov pishchevarenia. 1956.
365 p. (MIRA 9:7)

1. Deyatvitel'nyy chlen AN USSR (for Kavetskiy)
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CHEBOTAREV, D. F.

EXCERPTA MEDICA Sec.18 Vol.1/1 Cardiovascular Jan 57

193. CHEBOTAREV D. F. ^{DMITRY FEDOROVICH} *Hypertension syndrome (Russian text)* Kiev 1956 (290 pages) Illus. 41

Literature and clinical experimental data on functional pathology and metabolism in pregnant women with a hypertension syndrome (capillary blood circulation, permeability of the capillaries, tissue gas exchange, acid-alkali equilibrium; water, electrolyte, nitrogen, carbohydrate and cholesterol change; kidney and liver function). A classification of the stages of the hypertension syndrome in pregnant women is proposed (functional stage with unstable clinical signs, functional stage with stable clinical signs and dystrophic stage). The different clinical forms are described (hypertensive disease and hypertension syndrome in pregnant women; kidney disease and hypertension syndrome in pregnant women; diabetes and hypertension syndrome). Considering later toxicosis in pregnant women with a neuro-vascular syndrome, as a result of disturbance of the cerebral regulation of the vegetative functions of the organism, the author outlines the principles of prophylaxis and therapy of the various forms of hypertension syndrome.

Svet-Moldavskaya - Moscow

CHIBOTAROV, D.F., professor (Kiyev)

**Main tasks in the organization of rheumatic fever control in the
Ukrainian S.S.R. Vrach, dele no. 11:1193-1197 N '56. (MLRA 10:3)**

- 1. Glavnyy terapevt Ministerstva zdavookhraneniya USSR.
(UKRAINE--RHEUMATIC FEVER)**

CHEBOTAREV D.F.

KRIVOGLAZ, Boris Abramovich, professor; CHEBOTAREV D.F., redaktor;
LOCHMATYY, Ye.G., tekhredaktor.

[Prevention and treatment of cardiovascular disturbances in
metallurgical workers dealing with heat processes] Profilaktika
i lechenie serdechno-sosudistykh narushenii u rabochikh goriachikh
tsekhov. Kiev, Gos.med.isd-vo USSR, 1957. 201 p. (MIRA 10:11)
(CARDIOVASCULAR SYSTEM--DISEASES) (HEAT--PHYSIOLOGICAL EFFECT)

CHEBOTAREV, D.F.

CHEBOTAREV, D.F., prof.

~~Place of the therapist in the public health system, Vrach.delo~~
no.10:1069-1071 O '57. (MIRA 10:12)

1. Glavnyy terapevt Ministerstva zdravookhraneniya USSR.
(THERAPEUTICS)

CHEBOTAREV, D.F.

CHEBOTAREV, D.F., prof. (Kiyev)

Development of therapeutic aid in the Ukrainian S.S.R. Vrach.delo.
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(UKRAINE--THERAPEUTICS)

CHEBOTAREV, D.F., prof.; SHIGANSKAYA, V.M.

Diagnosis of achylia gastrica without using a sound. Vrach.delo
no.2:121-123 F '58. (MIRA L1:3)

1. Kafedra terapii I (zav.-prof. D.F.Chebotarev) Kiyevskogo
instituta usovershenstvovaniya vrachey.
(STOMACH--DISEASES)

CHEBOTAREV, D.F., prof.

Significance of rheumatic heart disease in the development of sclerotic changes of the aorta and the coronary vessels. Vrach.delo no.6: 567-570 Je '59. (MIRA 12:12)

1. Kafedra terapii I Kiyevskogo instituta usovershenstvovaniya vrachey.
(RHEUMATIC HEART DISEASE) (CORONARY VESSELS--DISEASES)

CHEBOTAREV, D.F., prof. SHINKARENKO, N.K.; KOZINTSEVA, P.V.

**Novocaine in the treatment of cardiovascular diseases. Vrach, delo
no.8:785-789 Ag '59. (MIRA 12:12)**

**1. Kafedra terapii I Kiyevskogo instituta usovershentsvovaniya vrachey
i Pervaya poliklinika Chetvertogo upravleniya Ministerstva zdavookhra-
neniya USSR.**

(NOVOCAINE)

(CARDIOVASCULAR SYSTEM--DISEASES)

CHEBOTAREV, D.F.

NESTEROV, A.I. (Moskva); TUSHINSKIY, M.D. (Leningrad); GOREV, N.N. (Kiyev);
 DOLGO-SABUROV, B.A. (Leningrad); ZAKUSOV, V.V. (Moskva); MUROMTSEV, S.H.
 (Moskva); CHUMAKOV, M.P. (Moskva); ZHDANOV, V.M., prof. (Moskva);
 NEGOVSKIY, V.A., prof. (Moskva); BIRYUKOV, D.A. (Leningrad);
 LITVINOV, N.N., prof. (Moskva); SOKOLOVA-PONOMAREVA, O.D. (Moskva);
 KUPALOV, P.S. (Leningrad); BATEKIS, G.A. (Moskva); KOSYAKOV, P.N.,
 prof. (Moskva); SHMELEV, N.A. (Moskva); BUSALOV, A.A., prof.
 (Moskva); MOLCHANOVA, O.P. (Moskva); STRASHUN, I.D.; BLOKHIN, N.N.
 (Moskva); PREOBRAZHENSKIY, B.S. (Moskva); VISHNEVSKIY, A.A. (Moskva)
 CHERNIGOVSKIY, V.N. (Moskva); PAVLOVSKIY, Ye.N., akademik (Leningrad);
 MYASHNIKOV, A.L. (Moskva); VINOGRADOV, V.N. (Moskva); MAYEVSKIY, V.I.:
 DAVYDOVSKIY, I.V. (Moskva); IOFFE, V.I. (Moskva); KURASHOV, S.V.:
 ANOKHIN, P.K. (Moskva); BOGDANOV, I.D. (Kiyev); ZIL'BER, L.A.
 (Moskva); BRONOVITSKIY, A.Yu.; CHEBOTAREV, D.F., prof.

Debate on the address by Professor V.V. Parin, academician
 secretary of the Academy of Medical Sciences of the U.S.S.R.;
 abridged comments by members of the Academy of Medicine and
 the directors of institutes. Vest.AMI SSSR 14 no.8:19-31
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 Chernigovskiy, Myasnikov, Vinogradov, Anokhin, Zil'ber).
 (Continued on next card)