SHASTIN, N. P.

PA 63/49T69

USSR/Medicine - Medical Societies May 49
Medicine - Surgery

"Minutes of the 14 January 1949 Meeting of the Moscow Surgical Society," N. P. Shastin, 1 p

"Khirurgiya" No 5

Briefly outlines this meeting which, for the most part, was devoted to honoring the memory of A. V. Vishnevskiy, and to discussing the importance of his contributions to Russian surgery.

63/49T69

USSR/Medicine - Societies, Medical Jun 49
Medicine - Surgery

"Minutes of the Meetings of the Moscow Surgical Society," N. P. Shastin, 6 pp

"Khirurgiya" No 6

Complete minutes of two meetings of the society held 28 Jan 49 and 11 Feb 49. Includes reports and demonstrations submitted by attending members. Prof N. I. Gurevich was chairman and Prof D. K. Yazykov secretary of the first meeting, while Prof B. E. Linberg was chairman, and N. P. Shastin secretary of the second.

52/49177

SHASTNYY, A.I.

Showing a selextive system in the activity of the cerebral hemispheres by substituting inhibitive conditioned stimuli [with summary in English]. Zhur.vys.nerv.deiat. 7 no.3:398-401 My-Je '57. (MIRA 10:10)

1. Laboratoriya fiziologii i patologii vysshey nervnoy deyatel'nosti Instituta fiziologii im. I.P.Pavlova Akademii nauk SSSR.
(REFLEX, CONDITIONED,
selective systems in brain by substitution of inhib. conditioned stimuli (Rus))

[redacted]

[redacted], N., inzhener-polkovnik.

People with inquisitive minds. Sov.voin 38 no.18:2-3 S '56.
(MLRA 10:9)
(Russia--Armed forces)

USSR/Medicine - Surgery, Breast Tuberculosis Oct 49

"Second All-Union Conference on Breast Surgery," N. P. Shastin, 6 pp

"Khirurgiya" No 10

On the initiative of directors of All-Union Soc of Surgeons and All-Union Soc of Phthisiologists, assisted by Sci Med Council, Min of Pub Health USSR, the All-Union Conf on Breast Surgery was held at Moscow 20-24 Apr 49. Over 70 reports were read on pertinent subjects: lobectomy, pneumonectomy, etc. Many distinguished doctors participated.

FDD

152T62

USSR/Medicine - Surgery
Cancer

Oct 49

"Proceedings of the 13 May 1949 Conference of the Moscow Society of Surgeons," N. P. Shastin, 3 3/4 pp

"Khirurgiya" No 10

Chm: Prof I. S. Zhurov; Secy, V. A. Chernavskiy. Tribute was paid to late Prof S. R. Mirotvortsev. Reports: Prof M. A. Yegorov, "Removal of Cancerous Tumor Together With the Carotid and the Vagus Nerve"; B. A. Riman, "Lymphangioma of the Spleen"; Prof D. K. Yazykov, "Three Years Experience in Osteoplastics in Soviet Orthopedic Institutes and Hospitals." Prof V. D. Chaklin discussed postoperative treatment with Vitamin D, etc.

152T61

SHASTIN, N. P. PA 160T52

USSR/Medicine - Medical Society May 50
Surgery

"Minutes of Meetings of the Moscow Surgical Society," N. P. Shastin, 10½ pp

"Khirurgiya" No 5

Outlines reports, demonstrations, and discussions of three meetings of subject society held 23 Dec 49, 13 Jan 50, and 27 Jan 50. First meeting was held in honor of Stalin's 70th birthday; third on 75th anniversary of society. B. E. Linberg was chairman of first and third meetings and I. S. Zhorov of second.

[redacted] 160T52

CHASOV, V.P.

Esophagus - Cancer

Report on the third session of the A.V. Vishnevskii Institue of Surgery of the Academy of Sciences of U.S.S.R. Khirurgiia No.3, 1952.

Monthly List of Russian Accessions, Library of Congress, August, 1952, UNCLASSIFIED

[redacted], M. I.

Surgery

Minutes of the sessionof the Surgical Society of Moscow and Moscow Provinces of September 23, 1951. Khirurgiia no. 5, 1952.

Monthly List of Russian Accessions, Library of Congress, November 1952, UNCLASSIFIED

USSR/Medicine - Novocain Block in Intes- Jun 52
tinal Obstruction

"Minutes of the Meeting of the Surgical Society of Moscow and the Moscow Oblast, held 14, 28, and 29 December 1951," M. A. Kulcshova, N. P. Shastin, Ye. G. Dubert[illegible]

"Khirurgiya" [illegible], pp 82-90

The subject discussed at the session was the progress made in [illegible] surgery and the acceptance of paravertebral novocain blockade as an effective method of treating cases formerly considered incurable.

228T16

PA 228T16

At next meetings were discussed an outstanding achievement in Soviet surgery, the treatment of intestinal obstruction by a lumbar (bilateral paranephral) novocain block. The surgeons present admitted that in a certain type of intestinal obstruction surgical interference was essential, and that mortality was still high, but that the new method contributed to the recovery in many cases. Presented by the Moscow Soc of Moscow and Moscow Oblast Prof A. N. Bakulev.

228T16

SHASTIN, N. P.

[redacted], V. . .

Surgery - Moscow Province

Minutes of the January 11, 1952, session of the Surgical Society of Moscow and Moscow Province. Khirurgiia No. 7, 1952.

9. MONTHLY LIST OF RUSSIAN ACCESSIONS, Library of Congress, December 1952. Uncl.

SHASTIN, N.P.

Air disinfection with bactericidal lamps in operating rooms. Sov.med. 18 no.6:11-13 Je '54. (MLRA 7:6)

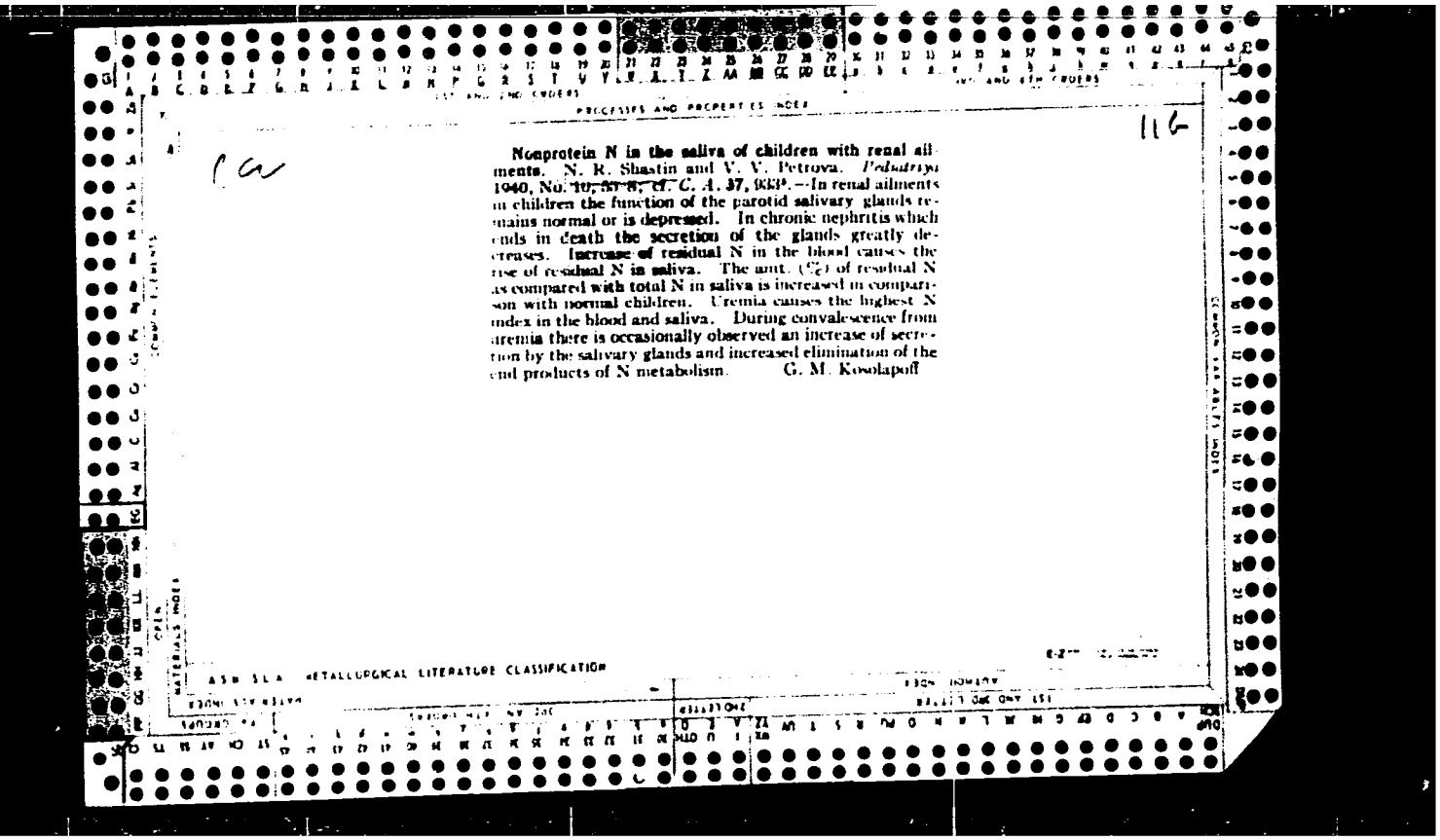
1. Iz gospital'noy khirurgicheskoy kliniki (dir.-prof. B.S. Mayat) lechebnogo fakul'teta II Moskovskogo meditsinskogo instituta imeni I.V.Stalina.

(OPERATING ROOMS
*disinfection of air with ultraviolet lamps)
(AIR POLLUTION,
*bact. pollution in operating room, disinfection with ultraviolet lamps)
(ULTRAVIOLET RAYS, effects,
*air disinfection in operating rooms)

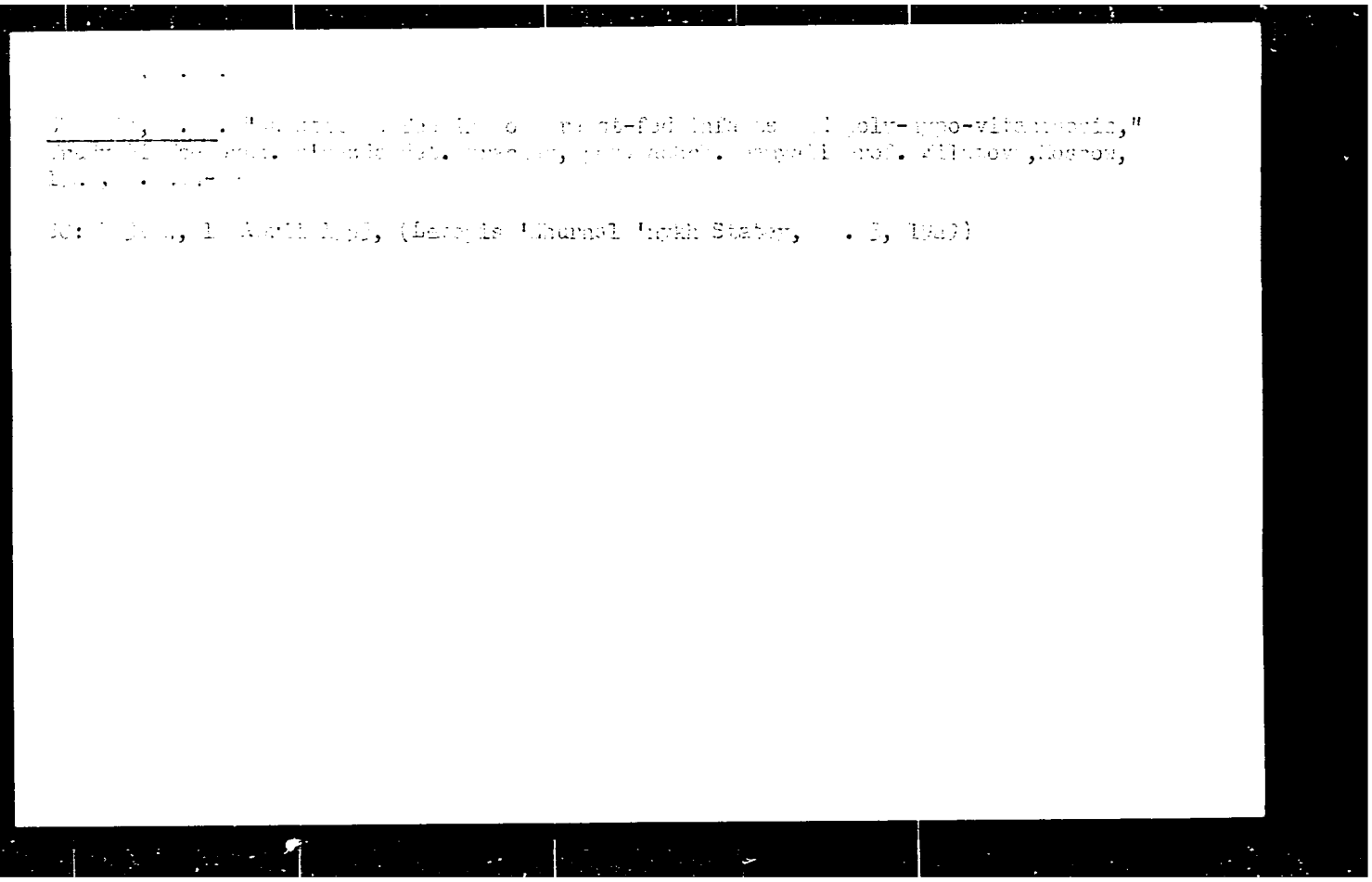
SHASTIN, N.P. (Simferopol', bul'var Lenina, d.5/7, komn. 88)

Our experience in conservative treatment of acute pancreatitis.
Nov.khir. arkh. no.3:88-89 My-Je '58 (MIRA 11:9)

1. Kafedra obshchey khirurgii (zav. - prof. N.P. Shastin)
Krymskogo meditsinskogo instituta.
(PANCREAS---DISEASES)



Nonprotein N in the saliva of children with renal ailments. N. R. Shastin and V. V. Petrova. *Pediatriya* 1940, No. 10, 57-8; cf. *C. A.* **37**, 933⁹.—In renal ailments in children the function of the parotid salivary glands remains normal or is depressed. In chronic nephritis which ends in death the secretion of the glands greatly decreases. Increase of residual N in the blood causes the rise of residual N in saliva. The amt. (%) of residual N as compared with total N in saliva is increased in comparison with normal children. Uremia causes the highest N index in the blood and saliva. During convalescence from uremia there is occasionally observed an increase of secretion by the salivary glands and increased elimination of the end products of N metabolism. G. M. Kosolapoff



SHASTIN, N. R. Prof

PA 51T49

USSR/Medicine - Chicken Pox
Medicine - Parotitis

Mar 1948

"Experience with the Serum Prophylaxis of Chicken Pox and Contagious Parotitis," Prof N. R. Shastin, Clinic Children's Diseases, Stalingrad Med Inst, 2 pp

"Sovets Medits" No 3

In fight against intrahospital infections and to prevent epidemic of chicken pox and contagious parotitis among children in clinic, 60 cu cm of normal human serum injected intramuscularly into each child. Eighty exposed to chicken pox and 51 exposed to contagious parotitis inoculated. From this experiment, author recommends use of serum prophylaxis for chicken pox and contagious parotitis in children's hospitals and sanitariums. [redacted] 51T49

SHASTIN, N. R.

Vitamin content of breast milk. Vopr. pediat. 18:4, 1950.
p. 55-7

1. Of the Department of Nutrition (Head--Prof. N. R. Shastin), Republic Scientific-Research Pediatric Institute (Director--Prof. A. B. Volovik).

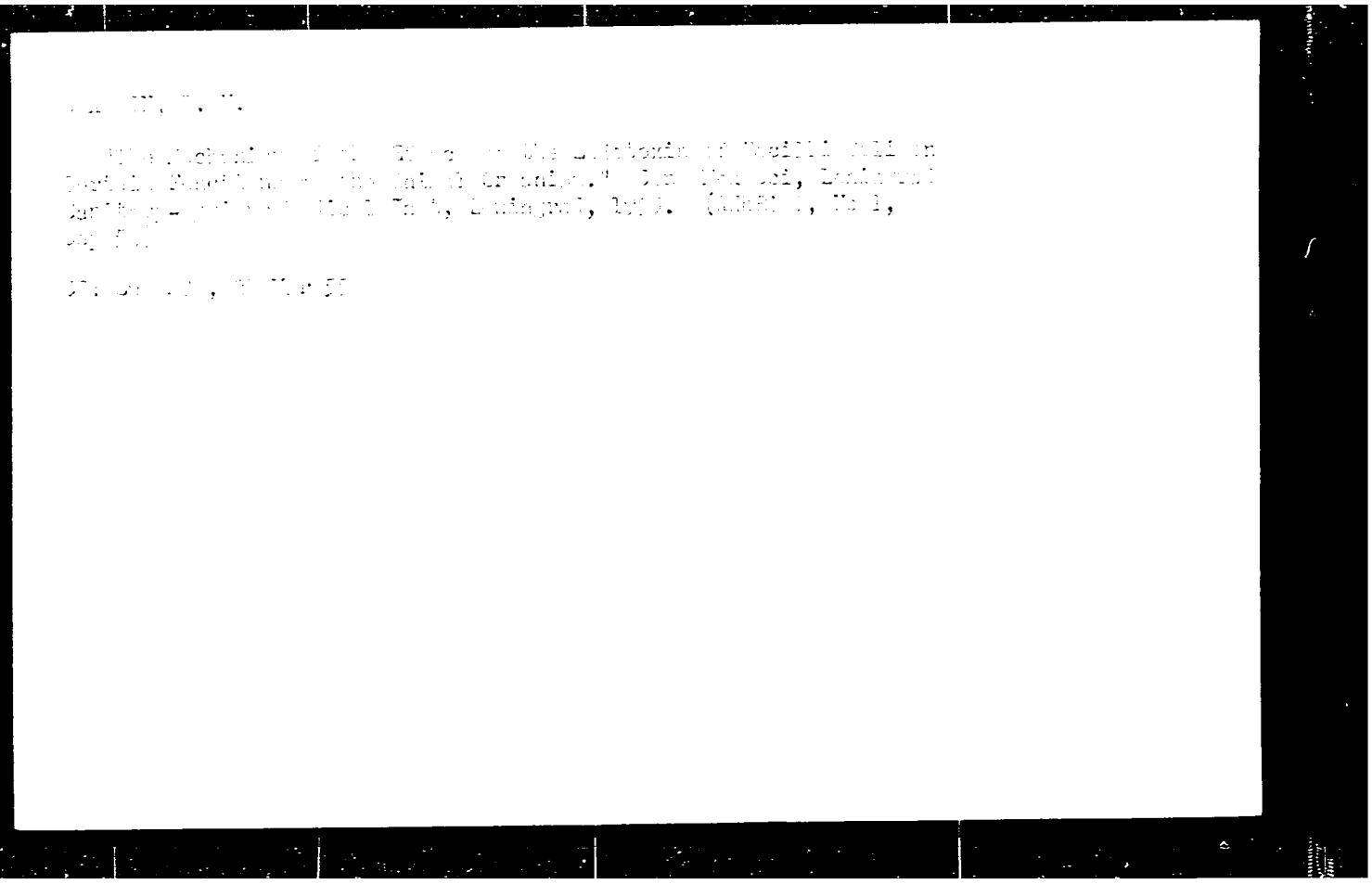
CLML 19, 5, Nov., 1950

KADYKOV, B.I., doktor biologicheskikh nauk, GERTSMAN, L.M.; SHASTIN, R.N.

Influence of some emulsifiers on fat absorption and their biological evaluation. Maslo-zhir.prom. 17 no.1:9-11 Ja '52. (MLRA 10:9)

1. Leningradskiy nauchno-issledovatel'skiy sanitarno-gigiyenicheskiy institut.

(Oleomargarine) (Emulsifying agents) (Absorption (Physiology))



SHASTIN R.N.

Mechanism of action of the endotoxin of intestinal bacilli on some functions of the animal organism. II. Action of the endotoxin of intestinal bacilli on the activity of cholinesterase. R. N. Shastin (Sci. Research Sanit.-Hyg. Inst., Leningrad). *Voprosy Pitaniya* 13, No. 5, 24–8(1954); cf. *C.A.* 48, 2888b.—Subcutaneous injection of the endotoxin into white rats leads within a few hrs. to a sharp repression of the activity of cholinesterase of the liver and blood serum, and to a much lesser degree the activity of the gray matter of brain. The last also is true in the case of denervation of the liver but denervation of the liver eliminates the inhibitory effect of the endotoxin on the enzyme activity of the liver and blood serum. It is suggested that the activity of cholinesterase in the blood serum and in the tissues, in the case of the poisoning with the endotoxin of intestinal bacilli, might be increased by supplying the organism with vitamin C. E. Wierbicki

USSR/Medicine - Nutrition FD-3289

Card 1/1 Pub. 141 - 4/19

Author : Kadykov, B. I.; Shastin, R. N.

Title : Concerning the principle of calculating the coefficient of fat assimilation

Periodical : Vop. pit., 14, 14-17, Jul/Aug 1955

Abstract : Conducted a series of experiments on fat extraction from rat fecal matter in order to clarify discrepencies in coefficients of fat assimilation. Data indicated that a certain part of fecal fat originates from excretions of the intestine walls. Recommends that this factor be taken into account in calculating coefficients of fat assimilation. Eleven references (eight USSR; three since 1940). One table.

Institution : Sector of Physiology and Nutritional Hygiene (Head - Prof. B. I. Kadykov) Leningrad Sci-Res Sanitary-Hygiene Inst

Submitted :

USSR/Human and Animal Physiology. Digestion. Salivary Glands. T-7

Abs Jour: Ref Zhur-Biol., No 12, 1958, 55696.

Author : Gavrilov, R.I., Shastin, R.N.
Inst : Kalinin Institute of Medicine.
Title : The Dynamics of Ca^{45} Discharge by Parotid and Submaxillary Salivary Glands when Using Alimentary and Rejectable Irritants.

Orig Pub: Tr. Kalininsk. med. in-ta, 1957, vyp. 1, 122-126.

Abstract: After an intravenous injection of 100 μCurie of Ca^{45}, the discharge of Ca^{45} with the saliva was examined in dogs whose parotid (PG) and submaxillary gland (SG) ducts were exposed. The saliva discharge was provoked by powdered meat bisquits being eaten, or by an oral induction of lemon citrate. The specific salivary activity of PG was higher than specific

Card : 1/2

SHASTIN, N.N

USSR/Human and Animal Physiology - Digestion. Salivary Glands. T-8

Abs Jour : Ref Zhur - Biol., No 10, 1958, 46137

Author : Shastin, N.N.

Inst : Kalinin Institute of Medicine.

Title : Intermediate Secretion of Parotid Salivary Glands in Children.

Orig Pub : Tr. Kalininsk. med. in-ta, 1957, vyp. 1, 136-145.

Abstract : The parotid glands of 30 healthy children (5-11 years old) practically lacked spontaneous (intermediate) secretion (SS) during night hours. As auditory (with a cotton plug) and visual (with a bandage) analyzers were excluded, a diminution of SS was produced. Crying intensified SS by 3-20 times. Carious teeth caused SS to become sharply intensified (up to 1-2 ml in 30 seconds), but this phenomenon decreased during the night, although it

Card 1/2

GAVRILOV, R. I., prof.; SHASTIN, R. N., dotsent; KRANTIKOVA, T. V., starshiy laborant

Effect of a change in the functional state of the nervous system on the excretory activity of the salivary glands. Trudy KGMI no.2:37-44 '60. (MIRA 15:7)

1. Iz kafedry patologicheskoy fiziologii - zav. kafedroy professor R. I. Gavrilov.

(SALIVARY GLANDS) (NERVOUS SYSTEM)

SHASTIN, R.N.; KUCHERYAVYY, F.Kh.; KRANTIKOVA, T.V.

Activity of false and true cholinesterase in irradiated animals.
Med.rad. 5 no.7:88-89 '60. (MIRA 13:12)
(RADIATION SICKNESS) (CHOLINESTERASE)

SHASTIN, R.N.

Significance of the change in enzyme activity in the development of various pathological processes. Arkh. pat. 23 no.3:3-8 '61. (MIRA 14:3)

(ENZYMES)

SHASTIN, R.N., dotsent

Importance of intestinal mucus in the process of the excretion of radioactive iodine. Trudy KGMI no.10:151-153 '63. (MIRA 18:12)

1. Iz kafedry patologicheskoy fiziologii (zav. kafedroy dotsent R.N.Shastin, nauchnyy konsul'tant - prof. R.I.Gavrilov) 1-go Leningradskogo meditsinskogo instituta.

KOROVNIKOV, K.A., kand.med.nauk; SHASTIN, R.N., dotsent; SHKOLOVOY, V.V., assistent; BEL'CHENKO, D.I., kand.med.nauk

Changes in the activity of various enzyme systems under the action of the endotoxin of Escherichia coli. Trudy KGMI no.10:157-161 '63. (MIRA 18:1)

1. Iz kafedry patologicheskoy fiziologii (zav. kafedroy dotsent R.N.Shastin) Kalininskogo gosudarstvennogo meditsinskogo instituta.

SHASTIN, R.N., dotsent

Some problems of enzyme-related pathology. Trudy KGMI no.10:461-466 '63. (MIRA 18:1)

1. Iz kafedry patologicheskoy fiziologii (zav. kafedroy - dotsent R.N.Shastin) Kalininskogo gosudarstvennogo meditsinskogo instituta.

L 46198-66 EWT(1) RH/RO

ACC NR: AR6008635 (N) SOURCE CODE: UR/0397/65/000/019/0013/0013

AUTHOR: Shastin, R. N.; Ponomarenko, L. N. 29 B

TITLE: Acetylcholine metabolism and its significance in pathology 22

SOURCE: Ref. zh. Farmakologiya. Toksikologiya, Abs. 19.54.93

REF SOURCE: Sb. Vopr. enzimopatologii, m., Meditsina, 1964, 39-71

TOPIC TAGS: brain, nerve fiber, enzyme, biologic metabolism, central nervous system, drug, pharmacology

ABSTRACT: A brief history of the study of cholinergic drugs is given. The views of Kennon and Kostoyants on the mechanism of synaptic transmission with the participation of acetylcholine are presented. Evidence of cholinergic transmission into the central nervous system is cited. Hypotheses of Nakhmonzon on the role of acetylcholine in transmission of nerve impulses and of Kelly on the presynaptic action of primary acetylcholine and the postsynaptic action of secondary acetylcholine are discussed. Possible importance of acetylcholine as a hormone in nerve deprived tissues is considered. Data are presented on the characteristics of acetylcholine effects on the central nervous system with different routes of administration, and the effect of acetylcholine on the reticular formation. Works are cited showing the

Card 1/2 UDC: 615.785.4

L 46158-66

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dependence of the acetylcholine level of the brain on its activity level. Syntheses and breakdown of acetylcholine in the tissues are examined. The properties of cholinesterase, its level in various organs and tissues, and activity change in the process of onthogenesis are described. A classification of cholinesterase inhibitors (according to Ammon) is given. The relation of certain pathological states (allergy, inflammation and others) to acetylcholine metabolism is discussed. Data are presented on change of cholinesterase activity and acetylcholine concentration in tissues and body fluids during some diseases of the central nervous system, liver, infectious diseases, radiation injury and others. High efficacy of cholinesterase inhibitors during certain diseases is shown, and the need for long range studies of acetylcholine metabolism and factors affecting it is emphasized. Bibliography of 284 titles. V. Prozorovskiy. [Translation of abstract].

SUB CODE: 06

Card 2/2

SHAKHTIN, R.N., dots., red.

[Problems of enzymopathology] Voprosy enzimopatologii. Moskva, Meditsina, 196[illegible], 262 p. (MIRA 18:[illegible])

1. Kalinin. Meditsinskiy institut.

SHASTIN, R.N. (Kalinin); KOROVNIKOV, K.A. (Kalinin)

Bradykinin and its pathogenetic importance. Pat. fiziol. i eksp. terap. 9 no.1:81-87 Ja-F '65. (MIRA 18:11)

NATALEVICH, E. E.; MARTIN, V. A.; BORISOV, A. V.

Mehanicheskaya Tsentralizatsiya Na Zheleznih Dorogah, SSSR (Mechanical Centralization on Railroads in the USSR, Moscow, 1950.

BARANOV, A.F., redaktor; BIZYUKIN, D.D., redaktor; VAKHNIN, M.I., otvetstvennyy redaktor toma, professor, doktor tekhnicheskikh nauk; VEDENISOV, B.N., redaktor; IVLIYEV, I.V., redaktor; MOSHCHUK, I.D., redaktor; RUDOY, Ye.F., glavnyy redaktor; SOKOLINSKIY, Ya.I., redaktor; SOLOGUBOV, V.N., redaktor; SHILEVSKIY, V.A., redaktor; ALFEROV, A.A., inzhener; ANASHKIN, B.T., inzhener; AFANAS'YEV, Ya.V., laureat Stalinskoy premii, inzhener; BELENKO, K.M., dotsent; BORISOV, D.P., dotsent, kandidat tekhnicheskikh nauk; ZHIL'TSOV, P.N., inzhener; ZBAR, N.R., inzhener; IL'YENKOV, V.I., dotsent, kandidat tekhnicheskikh nauk; KAZAKOV, A.A., kandidat tekhnicheskikh nauk; KRAYZMER, L.P., kandidat tekhnicheskikh nauk; KOTLYARENKO, N.F., dotsent, kandidat tekhnicheskikh nauk; MAYSHEV, P.V., professor, kandidat tekhnicheskikh nauk; MARKOV, M.V., inzhener; NELEPETS, V.S., dotsent, kandidat tekhnicheskikh nauk; NOVIKOV, V.A., dotsent; OBLOV, N.A., inzhener; PETROV, I.I., kandidat tekhnicheskikh nauk; PIVKO, G.M., inzhener; POGODIN, A.M., inzhener; RAMLAU, P.N., dotsent, kandidat tekhnicheskikh nauk; ROGINSKIY, V.N., kandidat tekhnicheskikh nauk; RYAZANTSEV, B.S., laureat Stalinskoy premii, dotsent, kandidat tekhnicheskikh nauk; SNARSKIY, A.A., inzhener; FEL'DMAN, A.B., inzhener; SHASTIN, V.A., laureat Stalinskoy premii, inzhener; SHUR, B.I., inzhener; GONOROVOV, V.I., inzhener, retsenzent; NOVIKOV, V.A., dotsent, retsenzent; AFANAS'YEV, Ye.V., laureat Stalinskoy premii, retsenzent;

[Technical handbook for railroad men] Tekhnicheskii spravochnik zheleznodorozhnika. Vol. 8. [Signaling, central control, block system, and communication] Signalizatsiia, tsentralizatsiia, blokirovka, sviaz'. Red. kollegiia A.F.Baranov [i dr.] Glav.red. E.F.Rudoi. Moskva, Gos. transp. zhel-dor. izd-vo, 1952. 975 p. (Continued on next card)

BRYLEYEV, A.M., laureat Stalinskoy premii, inzhener; GAMBURG, Ye.Yu., inzhener, retsenzent; GOLOVKIN, M.K., inzhener, retsenzent; KAZAKOV, A.A., kandidat tekhnicheskikh nauk, retsenzent; KUT'IN, I.M., dotsent, kandidat tekhnicheskikh nauk, retsenzent; LEONOV, A.A., inzhener, retsenzent; SEMENOV, N.M., laureat Stalinskoy premii, inzhener, retsenzent; CHER-NYSHEV, V.B., inzhener, retsenzent; VALUYEV, G.A., inzhener, retsenzent; METTAS, N.A., laureat Stalinskoy premii, inzhener, retsenzent; NOVI-KOV, V.A., dotsent, retsenzent; PIVOVAROV, A.L., inzhener, retsenzent; POGODIN, A.M., inzhener, retsenzent; KHODOROV, L.R., inzhener, retsenzent; PIVOVAROV, A.L., inzhener, retsenzent; POGODIN, A.M., inzhener, retsenzent; KHODOROV, L.R., inzhener, retsenzent; SHUPLOV, V.I., kandidat tekhnicheskikh nauk, retsenzent; KLYKOV, A.F., inzhener, retsenzent; YUDZON, D.M., tekhnicheskiy redaktor; VERINA, G.P., tekhnicheskiy redaktor.

[Technical handbook for railroad men] Tekhnicheskii spravochnik zheleznodorozhnika. Vol. 8. [Signaling, central control, block system, and communication] Signalizatsiia, tsentralizatsiia, blokirovka, sviaz'. Red. kollegiia A.F.Baranov [i dr.] Glav.red. E.F.Rudoi. Moskva, Gos. transp. zhel-dor. izd-vo, 1952. 975 p. (Card 2) (MLRA 8:2)
(Railroads--Signaling) (Railroads--Communication systems)

SHASTIN, V. A.,

"Constructional Improvements of Blast Furnace Shop Equipment,"

Achievements of Blast Furnace Operators of the Magnitogorsk Metallurgical Combine, Moscow, Metallurgizdat, 1957, 279 pp.

SHASTIN, V.A., inzh.

New revisionary connector. Avtom., telem. i sviaz' no.9:26 S '57.
(MIRA 11:4)

(Electric lines--Equipment and supplies)

GORSHUNIN, I.Ye., inzh.; SHASTIN, V.A., inzh.

Carbide lamps for trackwalkers. Put' i put. khoz. no.6:15 Je '58.
(Lamps) (Railroads—Signaling) (MIRA 11:6)

SHASTIN, V.A.; KASHCHENKO, P.F.

Build-up welding of the charging equipment cones in blast furnaces. Stal' 25 no.8:795-796 S '65. (MIRA 18:9)

1. Magnitogorskiy metallurgicheskiy kombinat.

SHASTINA, L.A., kand.tekhn.nauk

Method of protecting capron nets from the destructive affects of sunrays and weather. Trudy VNIRO 41:170-177 '59. (MIRA 13:8)
(Fishing nets--Preservation)

KOSAKOV, P.F., inzh.; SHASTINA, S.V., inzh.

Efficient types of drilling rigs for the rock products industry. Sbor. trud. VNIIburud no.4:3-32 '65.
(MIRA 18:11)

MEDVEDOVSKAYA, B.I., inzh.; SHASTINA, Ye.A., inzh.; GORDON, Ye.Yu., inzh.; PROTSENKO, I.Ye., inzh.; LITVINOV, V.P., inzh.; SHISHKINA, E.I., inzh.; POPOVA, N.E., otv.red.; SALITAN, L.S., red.; KARABILOVA, S.F., tekhn.red.

[Handbook for the certification of multiplexing channels in domestic cable and overhead line communication systems] Rukovodstvo po pasportizatsii kanalov otechestvennykh sistem uplotneniia vozdushnykh i kabel'nykh linii sviazi. Moskva, Gos.izd-vo lit-ry po voprosam sviazi i radio, 1960. 261 p. (MIRA 13:9)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye mezhdugorodnoy telefonno-telegrafnoy svyazi.
(Telecommunication)

SHARYGIN, A.I.; PEYSAKH, I.I.; ISKAKOV, S.I.; MITROFANOV, V.N.; SHASTINA, Z.Ya.; SHCHERBAKOV, I.M.; GOMBERG, I.B.

Information. Tekst. prom. 24 no.9:91-97 S '64.
(MIRA 17:11)

1. Direktor Voronezhskoy kordnoy fabriki (for Sharygin). 2. Nachal'nik proizvodstvenno-tekhnicheskogo otdela upravleniya legkoy promyshlennosti Soveta narodnogo khozyaystva Moldavskoy SSR (for Peysakh). 3. Nachal'nik konstruktorskogo otdela Spetsial'nogo konstruktorskogo byuro Yuzhno-Kazakhstanskogo Soveta narodnogo khozyaystva (for Iskakov). 4. Nachal'nik konstruktorskogo sektora Spetsial'nogo konstruktorskogo byuro Yuzhno-Kazakhstanskogo soveta narodnogo khozyaystva (for Mitrofanov). 5. Nachal'nik Byuro tekhnicheskoy informatsii Melekesskogo l'nokombinata (for Shastina). 6. Glavnyy inzh. Khersonskogo khlopchatobumazhnogo kombinata (for Shcherbakov). 7. Nachal'nik tekhnicheskogo otdela Khersonskogo khlopchatobumazhnogo kombinata (for Gomberg).

ALEKSEYEV, A.F.; BORISENKO, A.P.; GLIKSON, V.I.; GROMOVA, N.F.; KRASOVSKAYA, A.I.; NOVIKOVA, N.N.; OVCHAROVA, A.I.; KHVOYNIK, P.I.; CHURAKOV, V.P.; SHASTITKO, V.M.; GEORGIYEV, Ye.S., red.; SHIL'DKRUT, V.A., red.; LEVCHUK, K.V., red.; LEKANOVA, I.S., tekhn.red.

[Prices on the world capitalistic market; a handbook] TSeny mirovogo kapitalisticheskogo rynka; spravochnik. Moskva, Vneshtorgizdat, 1958. 391 p. (MIRA 12:7)

1. Moscow. Nauchno-issledovatel'skiy kon"yunkturnyy institut. (Prices)

KAPELINSKIY, Yu.N.; POLYANIN, D.V.; ZOTOV, G.M.; IVANOV, I.D.; SERGEYEV, Yu.A.; MENZHINSKIY, Ye.A.; KOSTYUKHIN, D.I.; DUDUKIN, A.N.; IVANOV, A.S.; FINOGENOV, V.P.; ZAKHMATOV, M.I.; SOLODKIN, R.G.; DUSHEN'KIN, V.N.; BOGDANOV, O.S.; SEROVA, L.V.; GONCHAROV, A.N.; LYUBSKIY, M.S.; PUCHIK, Ye.P. [deceased]; KAMENSKIY, N.N.; SABEL'NIKOV, L.V.; GERCHIKOVA, I.N.; FEDOROV, B.A.; KARAVAYEV, A.P.; KARPOV, L.N.; VARTUMYAN, E.L.; SHIPOV, Yu.P.; ROGOV, V.V.; BOGDANOV, I.I.; VLADIMIRSKIY, L.A.; LEBEDEV, B.I.; ANAN'YEV, P.G.; TRINICH, F.A.; GOLOVIN, Yu.M.; MATYUKHIN, I.S.; SEYFUL'MULYUKOV, A.M.; SHIL'DKRUT, V.A.; ALEKSEYEV, A.F.; BORISENKO, A.P.; CHURAKOV, V.P.; SHASTITKO, V.M.; GERUS, V.G.; ORLOV, N.V., red.; KAPELINSKIY, Yu.N., red.; GORYUNOV, V.P., red. V redaktirovanii prinimali uchastiye: BELOSHAPKIN, D.K., red.; GEORGIYEV, Ye.S., red.; KOSAREV, Ye.A., red.; PANKIN, M.S., red.; PICHUGIN, B.M., red.; SHKARENKOV, Yu.S., red.; MAKAROV, V., red.; BORISOVA, K., red.; CHEPELEVA, O., tekhn.red.

[The economy of capitalistic countries in 1958] Ekonomika kapitalisticheskikh stran v 1958 godu. Pod red. N.V.Orlova, IU.N.Kapelinskogo, V.P.Goriunova. Moskva, Izd-vo sotsial'no-ekon.lit-ry, 1959. 609 p. (MIRA 12:12)

1. Moscow. Nauchno-issledovatel'skiy kon"yunkturnyy institut. (Economic conditions)

SHASTITKO, Yu.M., (s. Staryy Salavan Ul'yanovskoy oblasti)

An aerodynamic instrument. Fiz. v shkole 15 no.5:54-55 S-O '55.
(Aerodynamic measurements) (MLRA 9:1)

SHASTITKO, Yu.M.

Apparatus for demonstration the elasticity of gases. Fiz.v shkole 17 no.2:63 Mr-Ap '57. (MLRA 10:3)

1. Starosalavanskaya shkola Ul'yanovskoy oblasti.
(Gases, Compressed--Study and teaching)

SHASTITKO, Yu.M.

Device for use in the viewing of endless film strips. Fiz. v. shkole 20 no.2:94 Mr-Ap '60. (MIRA 14:5)

1. Staro-Salavanskaya shkola, Ul'yanovskoy oblasti.
(Motion pictures—Projection)

SHASTKEVICH, Yu.G.; TARASOVA, E.O.

Some results of the comparision of laboratory determination of the elastic properties of rocks with seismic logging data. Mat.po geol.i pol.iskop.IAk.ASSR no.5:110-123 '61. (MIRA 15:7)
(Rocks--Elastic properties) (Seismic prospecting)

SCHASTLIVTSEV, P.M., inzhener.

Establishing norms for the size of administrative and managerial staffs. Sel'khozmashina no.8:23-26 Ag '57. (MLRA 10:8)

1.Nauchno-issledovatel'skiy institut Traktorosel'khozmash.
(Industrial management)

SHASTLIVTSEVA, N.G.

USSR/Cultivated Plants - Vegetables, Potatoes, Melons. M-3

Abs Jour : Ref Zhur - Biol., No 3, 1958, 10808

Author : Shastlivtseva, N.G.

Inst : Kirov Agricultural Institute.

Title : Growing Vegetables on Open Ground in the Zone Around the City of Kirovo.

Orig Pub : Tr. Kirovskogo s.-kh. in-ta, 1956, 11, No 23, 53-60

Abstract : An experiment was conducted as follows in the study economy of the Kirov Agricultural Institute: 1) crops were planted on a level surface, 2) on furrowed land which had been fertilized with 60 T. of manure, and 3) on furrowed land without manure. In all three variants seed was sown and also seedlings were set out in turf-humus pots. In addition a study was made of the influence of a protective belt of two or three rows of corn. The

Card 1/2

USSR/Cultivated Plants - Potatoes, Vegetables, Melons. M-3

Abs Jour : Ref Zhur - Biol., No 3, 1958, 10808

experiment was repeated four times. All of the tested techniques proved effective. Using the protective belt increased the cucumber yield significantly in all the variants of the experiments (2 to 2 1/2 times). Planting seedlings also proved effective in all the variants, especially in variant No 1 (more than 3 times). Setting out cucumbers on furrowed land likewise gave a significant increase in yield in comparison with 1) (114.7 and 92.0 centners/hectare). Fertilizing the ridges with manure proved comparatively ineffective (134.0 and 114.7 centners per hectare). The data were confirmed by testing these techniques under productive conditions.

Card 2/2

SHASTNAYA, P. I.

SHASTNY, A-Y.

USSR

Dynamics of "transmaximal inhibition" during progressive increase in the strength of a conditioned stimulus. A. J. Schastny. *C. R. Acad. Sci. U.R.S.S.*, 1954, **98**, 873—875.—Investigation on dogs of the effect on the magnitude of a salivary conditioned reflex response of varying the loudness of the conditioned stimulus (buzzer or pure tone). (Russian) G. S. BRINDLEY.

MD

BOGDANOV, B.N., red.; SHASTOV, A.I., red.; MESHTO, A.V., red.; OKOLOVICH, Ye.I., red.; ZHDANOV, P.P., red.; UVAROVA, A.F., tekhn. red.

[Guide to the Exhibition of the Achievements of the National Economy of the U.S.S.R.] Putevoditel. Moskva, Mashgiz, 1960. 474 p. (MIRA 15:7)

1. Moscow. Vystavka dostizheniy narodnogo khozyaystva SSSR. (Moscow--Exhibitions)

KUCHIN, V.D.; SHASTOVA, A.K.

Induced electromotive force and dielectric strength of irradiated polyvinyl chloride. Vysokom. soed. 4 no.12:1863-1866 D '62. (MIRA 15:12)

1. Zaporozhskiy mashinostroitel'nyy institut imeni V.Ya. Chubarya.
(Vinyl compound polymers—Electric properties)
(Radiation)

SHASTOVA, G.A.

USSR/Automatics and Telemechanics FD-2656

Card 1/1 Pub. 10-3/15

Author : Shastova, G. A. (Moscow)

Title : Investigating the interference stability of transmission of commands in remote control by methods of the theory of potential interference stability. I

Periodical : Avtom. i telem. 16, Jul-Aug 1955, 344-355

Abstract : The author evaluates the method given in the theory of potential interference stability in remote control and evaluates the effectiveness of interference stability of various codes. She notes that the theory of potential interference stability under normal fluctuational interference was created by V. A. Kotel'nikov ("Theory of potential interference stability under normal interference," Dissertation, Moscow Power Engineering Institute, 1946). She concludes that the methods of this theory permit one to select the most rational method of transmission of commands, namely from the view point of interference stability under fluctuational interference and also to study the dependence of interference stability upon the energy characteristics of the signal, rapid action, and frequency band.

Institution :

Submitted : April 16, 1955

SHASTOVA, . . A. (Cand. Tech. Sci.); GAVRILOV, M. A. (Cand. Tech. Sci.)

"Basic questions of the theory of the construction of signals and the theory of resistance to interference and reliability."

paper read at the Session of the Acad. Sci. USSR, on Scientific Problems of Automatic Production, 15-20 October 1956.

Automatika i telemekhanika, No. 2, 1957, p. 182-192.

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SHASTOVA G.A.

USSR / Radiophysics. Application of Radiophysical Methods I-9

Abs Jour : Ref Zhur - Fizika, No 5, 1957, No 12652

Author : Shastova, G.A.

Inst : Not given

Title : Investigation of the Interference Rejection of Transmission of Remote Control Commands by Means of the Methods of the Theory of the Maximum Interference Immunity. II.

Orig Pub : Avtomatika i telemekhanika, 1956, 17, No 5, 437-444

Abstract : The methods, considered in the first part (Referat Zhurnal - Fizika, 1956, No 14432) are used to determine the maximum possible interference immunity of various coding methods with a limited mean power of signal (amplitude of the signal is not limited). The receiver of the remote control system operates in a rigid synchronization mode. The interference immunity of the connected method of transmission

Card : 1/2

SHASTOVA, G. A.

V. A. Kashirin, G. A. SHASTOVA, "Parameters, optimum in interference-immunity, in a telemetering system." Scientific Session Devoted to "Radio Day", May 1956, Trudy Servizdat, Moscow, 9 Sep. 56

The interference-immunity of transmitting telemetering signals is determined for amplitude, frequency, pulse-frequency, width and code modulation with weak and relatively strong fluctuating interference. The magnitude of the reduced mean-square error is used as the criterion to estimate the interference-immunity. The error for weak fluctuating interference in a communication channel is determined by the method explained in a V. A. Kotel'nikov work.

It is shown that optimum transmission parameters exist for PTM, FN, PWM, and PCM which quarantee a minimum value of the reduced mean-square error for a given interference level in the communication channel. A comparison is made of these kinds of modulation for optimum and nonoptimum transmission parameters.

109-1-2/18

AUTHOR: Shaposova, G.A.

TITLE: Noise Suppressibility of the Hamming Code (O pomekhoustoychivosti koda Khemminga)

PERIODICAL: Radiotekhnika i Elektronika, 1958, Vol.III, Nr 1, pp.19-26 (USSR)

ABSTRACT: The article deals with the problem of the transmission of discrete signals by means of the three codes: (1) the normal binary code, (2) the binary code accompanied by a repetition of the signal and an "even" protection, and (3) the Hamming code. The second code is essentially similar to the first, except that the signal is transmitted twice and, by employing a protective code, it is possible to detect the presence of one error during each transmission. The Hamming system (Ref.1) is an error-correcting code, and for transmitting the same message, it requires a larger number of binary digits than the single binary code. First, the noise suppressibility of the codes is evaluated under the assumption that the probability of distortion of the binary symbols is constant. It is assumed that the probability of distortion of a binary symbol is P_1 and that for the transmission of M discrete signals it is

Card 1/4

Noise Suppressibility of the Hamming Code

necessary to employ N binary symbols. Expressions for the probability of distortion of the signal (consisting of N binary symbols) are derived and it is shown that for the simple binary code this probability is:

$$P(\geq 1) = 1 - (1 - P_1)^N \qquad (1)$$

while for the repeated binary, even-protected code and for the Hamming code it is given by:

$$P(\geq 2) = 1 - P(0) - P(1) = 1 - (1 - P_1)^N - NP_1(1 - P_1)^{N-1}, \qquad (2)$$

The equations are used to construct a number of graphs (see Figs.1, 2, 3 and 4) from which it follows that: (a) the Hamming code has a better noise suppressibility than the repeated binary, even-protected code, and (b) the Hamming code has a higher noise-suppressibility than the binary code,

Card 2/4

Noise Suppressibility of the Hamming Code

provided $P_1 \leqslant 0,3$. Noise suppressibility of the codes is also evaluated under the assumption that the signals are transmitted in the presence of noise, the signals have a limited amplitude U_m, and that the duration of the code is T. The above assumption is equivalent to restricting the energy transmitted in a message to a value:

$$Q^2_{N_B} = U^2_m T \quad , \tag{10}$$

if the message is coded in video pulses, and to

$$Q^2_{N_v} = \frac{1}{2} U^2_m T \tag{10,a}$$

if the message employs radio pulses. The probability of distortion of an information element (noise suppressibility) of a frequency-marker code (see Ref.5) is also evaluated. Properties of the codes are compared graphically in Figs.6, 7 and 8. It is found that (under the conditions of the restricted transmitted energy and in the presence of noise):

Card 3/4

109-1-2/18

Noise Suppressibility of the Hamming Code

(1) the Hamming code gives a higher noise suppressibility than the repeated binary code; (2) if the number of the transmitted information elements is large, the Hamming code gives a higher noise suppressibility than the simple binary code, and (3) the frequency-marker code has a higher noise suppressibility than the Hamming code. The paper contains 5 figures, 2 tables and 5 references (2 English and 3 Russian).

SUBMITTED: April 20, 1956

AVAILABLE: Library of Congress

Card 4/4

2(*)

SOV/119-58-11-13/15

AUTHORS: Makharov, V. A., Engineer, Shastova, G. A., Candidate of Technical Sciences

TITLE: Electrical Filter for Very Low Frequencies (Elektronnyy filtr infranizkikh chastot)

PERIODICAL: Priborostroyeniye, 1958, Nr 11, pp 30-30 (USSR)

ABSTRACT: The basic wiring circuit of a filter with a band-transmissivity which can be varied discretely within the range of from 0,1 to 2 cycles is given. The filter is represented by a balanced single-step direct-current tube amplifier. In the feedback of this amplifier a two-membered RC-filter is connected. At the input of the amplifier there is a single-member RC-filter for low frequencies. The parameters of the two-membered RC-filter must be selected in such a manner that the feedback is highly positive at the highest frequencies. The frequency characteristic of the amplifier without input filter is characterized by a sharp rise of transmissivity at the highest frequencies. The parameters of the input-RC-filter must be selected in such a manner that the rise is fully compensated at the highest frequencies. The orders of

Card 1/2

Electrical Filter for Very Low Frequencies SOV/119-58-11-13/15

Magnitude of the R- and C-members are tabularized. Selection is carried out with an accuracy of ± 1 %. Within the range of from 0 to 2 V the filter has a linear amplitude characteristic. The input resistance is greater than 1 MΩ. The drift from zero is 3 - 5 mV/h and can be reduced to 1 - 3 mV/h by a suitable selection of tubes. In the case of highly resistive loads (>30 kΩ) the filter increases the voltage by the 3-fold of its amount. In the case of a low-resistance load, the transmission coefficient of the filter amounts to 160 μA/V. The frequency characteristics are shown in form of graphs. The simultaneous switching over of capacities at the input filter and in the feedback warrants the passage of the following frequencies: 0,1; 0,25; 0,5; 1 and 2 cycles. The filter is fed by an anode battery (BAS -80) and by a dry heat element (EZ -30). There are 2 figures and 1 table.

Card 1/2

SOV/109-19-8-6/11

AUTHOR: Kashirin, V. A., Shastova, G. P. (Moscow)

TITLE: Noise Stability in the Transmission of Telemetering Signals in a Channel With Fluctuation Noise (Pomekhoustoychivost' peredachi signalov teleizmereniya po kanalu s fluktuatsionnymi pomekhami)

PERIODICAL: Avtomatika i telemekhanika, 1958, Vol. 19, Nr 8, pp. 767-775 (USSR)

ABSTRACT: The transmission of the parameter λ is investigated, which varies at random in the range from -1 to +1, however, in such a way that it can be represented with satisfactory accuracy by values, which are spaced in time at a distance T. T is connected with the maximum frequency F_m of the variation of the parameter by the equation $T = 1/2F_m$, it is assumed that all values of the parameter λ_m within the range from -1 to +1 have the same probability, and that the parameter λ is transmitted by means of the signal $A(\lambda,t)$ (which in the general case is a function of time and also of the trers-
Card 1/4 mitted parameter). The function $A(\lambda, t)$ is dependent upon

Noise Stability in the Transmission of Telemetering Signals in a Channel With Fluctuation Noise

the kind of modulation. When the parameter λ_0 is transmitted in a channel with weak fluctuation noises, the specific intensity of which equals σV/cycles, an error is caused, the relative value of which in an ideal receiver can be determined according to formula (2). This formula was obtained from the corresponding equation in reference 1 for the absolute value of the mean square deviation. The square of the derivative $\partial A(\lambda,t)/\partial\lambda$ is integrated from 0 to T. The mean value of the mean square deviation of all λ is obtained by ordinary integrating - formula (3). With the help of these formulae the potential noise stability of the various types of modulation, (pulse-frequency modulation, pulse-time modulation, pulse-code and pulse-width modulation) is determined. This is performed under the condition that the dynamic range of the signal $A(\lambda, t)$ is limited, that is to say, that the signal can vary from $-U_m$ to U_m, or from 0 to $2U_m$. A comparison of the noise stability of the various transmission types is given. Then it is shown that the frequency-, the pulse-frequency-, the pulse-time and the pulse-width modulation permit to reduce the error in transmitting as compared

Card 2/4

Noise Stability in the Transmission of Telemetering Signals in a Channel with Fluctuation Noise

to amplitude modulation, and that at the expense of a widening of the band of the used frequencies. The frequency-, and the pulse-frequency modulation are more effective than the pulse-time and the pulse-width modulation, as they permit to reduce the error inversely proportional to the first power of the frequency band, whereas the pulse-time and the pulse-width modulation only permit to reduce the error inversely proportional to the square root of the frequency band. This result differs from that in reference 1. It is further shown that in every type of a simple binary code a certain range of values of ϱ exists, in which the systems with a frequency modulation exhibit a greater noise stability and require a narrower frequency band. ϱ denotes the ratio of the maximum voltage of the signal and the effective voltage of the noise in the frequency band occupied by the parameter. In the systems with frequency modulation and a very low high-speed action (of the order of one second) it is in practice often difficult to guarantee an optimum frequency band because of the instability of the trans-

Noise Stability in the Transmission of Telemetering Signals in a Channel With Fluctuation Noise

mitter frequency, and of the frequency characteristics of the receiver. In such cases a system with frequency modulation may be less stable than a system with pulse-code modulation. There are 3 figures, 1 table, and 4 references, which are Soviet.

SUBMITTED: October 8, 1957

1. Telemeter systems--Performance 2. Signals--Transmission
3. Noise--Stability 4. Mathematics

SHASTOVA, G.A.

report to be presented at the 1st Intl Congress of the Intl Federation of Automatic Control, 29 Jun-5 Jul 1960, Moscow, USSR.

LERNER, A. Ya., - "The application of a self-adjusting system of automatic control"; [illegible] A. - "Industrial telemeasurement systems and digital technique"
MALOV, V. S., PHILIPPOV, [illegible] and [illegible] - "Some peculiarities of the structure of multi-communications regulation systems"
MEYEROV, M. V. - "Some peculiarities of the structure of multi-communications regulation systems"
MIKHAYLOVSKIY, V. N. - "Evaluation current systems and the possibility of increasing the quality of telemeasurement systems"
NEMIROVSKIY, V. V. - "Concerning the problem of established routines in automatic regulation systems"
NEMIROVSKIY, V. V. - "Concerning the problem of construction of digital double code automatic regulation systems"
NEMIROVSKIY, K. A. "Principals of construction of systems of automatic compensation"
NEMOVAN, Yu. I. - "Concerning the relation of systems of automatic control regulation with the parameters of periodic movements"
NIKOLAYEV, N. S., and KRASNOV, V. L. - "System of automatic control with the use of cutting of rolled metal on a continuous bar mill with the use of digital calculating machines"
OBOTUROV, V. M. - "Some principles of organizing systems of complex automation of large scale chemical production and optimization of these systems"
OSTROVSKIY, G. M. - "Systems of automatic regulation with intermittent change of parameters"
PENOV, V. P. - "Statistical synthesis of impulse systems"
PENOV, B. N. - "The invariant principle and its application in the calculation of linear and nonlinear systems"
PETROV, V. D. - "The problem of autonomy in the technique of automatic control"
PIVEN, V. P. - "Some problems of synthesis of automatic control non-linear systems"
POPOV, E. P. - "Method of determining the optimum system with non-linear relation of the observed function with the parameters of the signal"
PUSHILLO, V. P., PENOV, V. V., KHODUNOV, R. V., and YOLKOIN, E. E. - "Principles of construction of a single class of servo control systems for automating production processes"
ROZENOER, L.I. - "Varied methods of investigating the quality of control systems"
RUBINSKIY, V. M. - "Dynamics of automatic regulation of boiler-turbine units"
SHUMILOVSKIY, N. N., MEL'TSER, L. V., SALMOV, A. A., MEN-CHUN-CHUNG, and PIVOVAROV, L. A. - "Automatic control of composition of multi-ingredient mixtures"
SHAGOVSKIY, E. B., and SPILIN, V. G. - "Some results of work for the utilization of radioactive radiation for automatic control of mixing machinery"
SOLODOVNIKOV, V. V., BATKOV, A. M., BABURIN, V. M., VAL'DERMAN, Yu. S., and POPOVSKIY, A. K. - "Analyses and synthesis of automatic control systems with the aid of calculating machine facilities"
STAROVOYTOV, R. I., PUSHKIN, L. N., and SHIRIN, [illegible] - "Methods in optimizers and their use for solution of variation problems in automatic synthesis"
STRAKHOV, B. V. - "A system of alternating current electric drives with autonomous power supply"
TAKHA, I. M., and YAKUSHKOVSKIY, V. A. - "Apparatus for technical control with the use of nuclear radiation of organizing the of production"
TERNOVSKIY, G. A. - "Methods of determination trajectory of roots of linear systems and qualitative determination of type of trajectory"
TSYPKIN, Ya. Z. - "Elements of the theory of digital automatic systems"
VERCHKOVSKIY, D. B., KASHIRIN, V. A., CHUKIN, Yu. I., and SHASTOVA, G. A. - "Static stability of telemeasurement"
VENTSOV, V. A. - "Interactions of a mathematical modeling and calculating technology experiment in calculating loads in electrical systems"

PHASE I BOOK EXPLOITATION SOV/5582

Vasil'yev, Rostislav Romanovich, and Galina Alekseyevna Shastova

Peredacha telemekhanicheskoy informatsii (Transmission of Telemechanical Information) Moscow, Gosenergoizdat, 1960. 143 p. Errata slip inserted. (Series: Biblioteka po avtomatike, vyp. 19) 15,000 copies printed.

Editorial Board: I.V. Antik, S. N. Veshenevskiy, V. S. Kulebakin, A. D. Smirnov, B. S. Sotskov, Ye. P. Stefani, and N. N. Shumilovskiy; Ed.: N.A. Kuznetsov; Tech. Ed.: K.P. Voronin.

PURPOSE: This booklet is intended for engineers in the field of telemechanics and for students of corresponding specialized courses.

COVERAGE: The book deals with the theoretical fundamentals of remote control data transmission over noisy channels. Certain problems of applying theory of information methods in telemechanics are discussed. Engineering methods of designing noiseproof features for transmission of discrete and continuous messages are given. The reader is assumed to have a knowledge of mathematics of the level of technical schools of higher education. Sections 1 and 2 of Ch. I, and Ch. II

Card 1/4

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S/569/61/003/000/008/011
D201/D305

9,8300 6,9000
AUTHORS: Venchkovskiy, L.B., Kashirin, V.A., Chugin, Yu.I., and Shastova, G.A. (USSR)

TITLE: Interference-killing properties of telemetering

SOURCE: International Federation of Automatic Control. 1st Congress, Moscow, 1960. Statisticheskiye metody issledovaniya. Teoriya struktur, modelirovaniye, termination, obrazovaniye. Moscow, Izd-vo AN SSSR, 1961, 368 - 383

TEXT: The authors present the results of their investigation at the Institut avtomatiki i telemekhaniki AN SSSR (Institute of Automation and Telemechanics, AS USSR), of the interference-killing properties of telemetering systems in the presence of weak, comparatively strong and strong fluctuation and inpulse interference. In general, without specific limitations, good interference-killing properties may be obtained with different methods of telemetering. In most cases of actual industrial telemetering systems and in transistorized radio-telemetry systems, the signal is limited in

Card 1/3

Interference-killing properties ...

amplitude. The authors show that, as opposed to the earlier assumption, the best interference-killing properties are exhibited by cooled binary telemetering systems, the maximum interference-killing properties are actually shown by frequency systems of telemetering, for a wide range of changes of parameters and interference level. Such a performance could not be obtained with coded telemetering systems without considerable technical complications. As the most suitable method of noise analysis in telemetering systems, a simple photographic method of determining the probability density of amplitude is suggested. It consists of taking photographs of the random process displayed on the screen of a CRO with subsequent analysis of the film by means of a micro-photometer. This method was found to be suitable for analyzing fluctuating processes at frequencies from 1 Kc/s upwards, using standard after-glow tubes (half-glow time 10^{-2} ÷ 10^{-3} sec). A discussion followed, in which the following took part: V.A. Il'in (USSR), R.R. Vasil'yev (USSR) and A.M. Pshenichnikov (USSR). There are 1 table and 13 references: 9 Soviet-bloc and 4 non-Soviet-bloc. The references to the English-language publications read as follows: S.O. Rice, Bell Syst. Tech.

Card 2/3

S/103/62/023/004/007/011
D299/D501

AUTHOR: Shastova, G.A. (Moscow)

TITLE: Noise stability of pulse-signal receiver with excess bandwidth of input filter

PERIODICAL: Avtomatika i telemekhanika, v. 23, no. 4, 1962, 519 - 526

TEXT: Approximate formulas are derived for the probabilities of suppression and formation of a false signal in a receiver; the input filter of the linear detector has much greater bandwidth than the output filter. The power loss, due to the excess bandwidth, is determined. It is assumed that the detector has no lag and that both filters are ideal. Two types of connection of the low-frequency filter are considered: Across a blocking capacitor, and without it. First, the formulas for the constant- and variable noise and signal components are derived. Thereby the formula for the constant components can be approximated by a parabola (to within an accuracy of 5 %), whereas the formula for the variable components can be approximated by a broken line (to within 10 %). In addition to these

Card 1/4

Noise stability of pulse-signal ...

components, it is also necessary (for determining the noise suppression probability P_S and that of false signals P_F) to know the distribution law of the variable noise components at the detector output. In case of a receiver without blocking capacitor, one obtains, by means of the above approximate formulas, for the optimum threshold:

$$\beta_{opt} = \begin{cases} 0.385 + 0.564z + 0.085z^2 & (z < 0.6), \\ \dfrac{z^3 + 5.82z^2 + 6.2z}{8.6z + 1.89} & (0.6 < z < 2.2) \end{cases} \qquad (10)$$

β_{opt} increases with z; with $z > 0.96$, $\beta_{opt} > 1$. This means that a receiver with optimum threshold for high noises, is incapable of receiving signals in the absence of noises. This constitutes the principal shortcoming of receivers without blocking capacitor. For the probabilities $P_S = P_F = P$, one obtains (with optimum threshold):

Card 3/4

$$P = \begin{cases} V\left[\left(\frac{0.87}{z} - 0.73 + 0.19\ z\right)\sqrt{\gamma}\ \right] & (z < 0.6) \\ V\left[\left(\frac{z^2 - 3.78z + 4.53}{3.81z + 0.84}\right)\sqrt{\gamma}\ \right] & (0.6 < z < 2.2) \end{cases} \quad (11)$$

A wide-band receiver with $\beta = 0.5$, is reliable only if $(u_s/u_n)_{\Delta f} > 2$, (where u_s and u_n are constant signal- and noise components, respectively). Further, a receiver with blocking capacitor is considered. The optimum threshold is

$$\beta_{opt} = \begin{cases} 0.385 + 0.322\ z + 0.085\ z^2 & (z < 0.6) \\ \frac{z^3 - 3.82z^2 + 4.54z}{1.89 + 8.6\ z} & (0.6 < z < 2.2) \end{cases} \quad (14)$$

Such a receiver can also receive signals in the absence of noises. In the case of an optimum threshold, both types of receivers have similar noise-stability. The receiver without blocking capacitor is inferior in the case of strong signals and small γ (which charac-

terizes bandwidth), but superior if the signals are weak and γ is large. A threshold with $\beta = 0$, has a greatly deteriorating effect on the noise-stability of both types of receivers. The excess bandwidth reduces also considerably the noise-stability. The power loss is expressed by formula

$$W = \left(\frac{\rho_\gamma}{\rho_o}\right)^2_P, \qquad (20)$$

where $\rho_\gamma = 1.18\sqrt{\gamma/z}$, and ρ_o is the value of ρ_γ for $\gamma = 2$,. (ρ denotes the ratio of signal energy to specific noise). A table lists the values of W for various P. The power loss decreases with distortion probability. With $P = 10^{-3}$ and $10 \gamma 100$, $W(\gamma)$ can be approximated by the formula $W(db) = 3.3 \log_{10}\gamma$. There are 8 figures, 2 tables and 3 Soviet-bloc references.

SUBMITTED: August 31, 1961

Card 4/4

Mean loss criterion ...

independent data transmission the losses, in time separation circuits, are one sixth the number of the transmitted faults, approximately. The proposed method can be used for the examination of losses, resulting from failures and distortion of information, by considering the effect of interference in the line, and losses due to random error in a continuous transmission. Optimum loss relationship in process control devices is found in terms of its minimum compensation time. There are 2 figures.

SUBMITTED: December 13, 1961

Card 3/3

IL'IN, V.A.; SHASTOVA, G.A.

Some studies on the theory of communication in systems of regulation and control. Izv. AN SSSR. Tekh. kib. no.5:112-113 S-O '63. (MIRA 16:12)

S/103/63/024/001/007/012
D201/D308

6.4500

AUTHORS: Vasil'yev, R. R. and Shastova, G. A. (Moscow)

TITLE: Statistical coding in telemechanics

PERIODICAL: Avtomatika i telemekhanika, v. 24, no. 1, 1963, 82-91

TEXT: The authors give a short theoretical analysis of the interference-killing properties of the address transmission of an information system (also called coded selection transmission), in which the number of address is assigned to every object with two possible states. The signal of the control command 'connect' or 'disconnect' is transmitted, after addressing, by means of any existing method. In comparison with a multichannel system, a coded selection transmission may be used for statistical coding in systems controlling several objects. The speed of operation is the same, and the efficiency and the interference-killing properties are much better. For a given delay probability and statistics of information, the maximum number of objects which can be serviced may be determined by a single system of address transmission. If

Card 1/2

L 10260-63 EWT(d)/FCC(w)/BDS--AFFTC/ASD/ESD-3/APGC--Pg-4/Ph-4/Pl-4--IJP(C)
ACCESSION NR: AP3001094 S/0103/63/024/006/0820/0823

68

AUTHOR: Shastova, G. A. (Moscow)

TITLE: Losses due to faulty condition in a system transmitting independent local information with various methods of fault detection

SOURCE: Avtomatika i telemekhanika, v. 24, no. 6, 1963, 820-823

TOPIC TAGS: information loss in telemetering, telemeter fault detection

ABSTRACT: Information losses are investigated theoretically for these three cases of fault detection: (a) failure of answer-back (acknowledgement) signal; (b) instantaneous fault signaling (c) special check signals frequently sent over the channel. Expediency of using either of the above methods can be determined from the "average-loss criterion" which is defined in the article. The methods (a) and (b) result in practically the same amount of losses when the average interval between two consecutive info sendings is much shorter than the repair time. The method (c) cuts the losses, as compared to the method (a), if the repair time is less than the average interval between sendings multiplied by 5. Orig. art. has: 3 figures and 8 formulas.

Card 1/2

ACCESSION NR: AP4035075 S/0103/64/025/004/0527/0538

AUTHOR: Shastova, G. A. (Moscow)

TITLE: Noise immunity of the discrete methods of telemetering

SOURCE: Avtomatika i telemekhanika, v. 25, no. 4, 1964, 527-538

TOPIC TAGS: telemeter, telemetering, telemetering noise immunity, noise immunity, discrete telemetering

ABSTRACT: The noise immunities of these methods of discrete telemeter transmission are compared: single-pulse frequency code; two-pulse frequency code; AM, FM, and PhM pulse-code modulations; AM and FM pulse-duration modulations; AM and FM pulse-time modulations. The comparison is made on the basis of the total error (square root of dispersion of noise and quantization errors) plotted against this specific signal-to-noise ratio:

$$\rho_0 = \frac{U_m\sqrt{T}}{\sigma_0} = \left(\frac{U_0}{U_n}\right)_{\Delta f = 1/T},$$

where $U_m = U_0\sqrt{2}$ is the signal amplitude, T is the code duration equal to the permissible info-transmission delay, σ_0 is the specific (within 1 cps) noise

Card 1/2

ACCESSION NR: AP4035075

voltage, U_n is the effective noise voltage within $\Delta f = 1/T$. It is found that: (1) In telemeters with an error of 1-10%, the best noise immunity can be achieved with an optimum FM; time division of channels may be recommended for multichannel systems; (2) In telemeters with an error under 1%, code methods are expedient; the code methods ensure a high noise immunity but require a rather broad frequency band; binary all-combination codes provide the best efficiency; (3) In high-accuracy systems, wherever an excess frequency band is available, a high noise immunity can be attained by using high-energy codes; (4) The high-energy codes cover many-frequency codes in systems with a limited signal amplitude and also C_n^m codes ($m \gg n$) in systems with a limited mean power. "The author wishes to thank N. Masanova and A. Rozanova for their help with calculations." Orig. art. has: 3 figures and 32 formulas.

ASSOCIATION: none

SUBMITTED: 19Oct62	DATE ACQ: 26May64	ENCL: 00
SUB CODE: EC	NO REF SOV: 010	OTHER: 000

Card 2/2

L 32631-66 EWT(d)/EWP(v)/EWP(k)/EWP(h)/EWP(l) BC
ACC NR: AT6011835 (A) SOURCE CODE: UR/3176/65/000/001/0265/0276

AUTHOR: Shastova, G. A.

54
B+1

ORG: none

TITLE: Occurrence of false commands in tele-systems with discrete delay elements

SOURCE: Vsesoyuznyy nauchno-issledovatel'skiy i proyektno-konstruktorskiy institut kompleksnoy avtomatizatsii v neftyanoy i gazovoy promyshlennosti. Trudy, no. 1, 1965. Avtomatizatsiya tekhnologicheskikh protsessov (Automation of technological processes), 265-276

TOPIC TAGS: remote control system, signal noise separation, telemetry system

ABSTRACT: Industrial tele-systems with a transmission rate of 0,1—1sec that use series binary codes with a sync pulse or alternating-quality frequency-type codes (no sync pulse) are considered; as a rule, such systems employ distributors that consist of series-connected transistor-type or magnetic-core-type delay elements. The article tries to determine the average number of false commands per unit time that occur in the above systems, when video or radio normal fluctuation noise is applied to

Card 1/2

the receiver input. A Poisson-law false-command-occurrence process is assumed. The frequency of occurrence of noise-caused false commands is important for sporadic-transmission systems. Protective means against false commands always increase the probability of nontransmission of desirable commands. Hence, a compromise solution is used in practice. If the losses caused by various information distortions are known, a minimum-loss formula can be used for optimizing the probability ratio of the distortions. Orig. art. has: 4 figures and 42 formulas.

SUB CODE: 09/SUBM DATE: none / ORIG REF: 006

AUTHOR: Kupershmidt, Ya. A.; Fomin, A. F.; Shastova, G.

ORG: none

TITLE: Optimal methods of information [illegible]

SOURCE: Nauchno-tekhnicheskaya konferentsiya po [illegible] telemekhaniki. Moscow, 1965. Promyshlennaya telemekhanika (Industrial telemechanics); materialy konferentsii Moscow Izd-vo Energiya, 1966, 24-49

TOPIC TAGS: [illegible] system, supervisory control system

ABSTRACT: A purely theoretical examination is presented of the following points: noise rejection and efficiency of transmission of discrete and continuous information; "trading" frequency band for signal power; comparison of various codes and modulation methods; selection of the optimal clock interrogation frequency in multi-channel time-division telemetry systems. It is found that: (1) Error-correcting codes and high-energy-per-element codes permit enhancing the noise rejection by making the signal band wider; the band-for-energy "trading" conditions are more

Card 1/2

L 37662-66

ACC NR: AT6002346

favorable: (a) for error-correcting codes when secondary FM and PAM are [illegible] are used and (b) for high-energy codes when a secondary AM is used; (2) [illegible] codes and a wider frequency band ensure better noise rejection than that [illegible] with PCM-AM and PCM-FM systems; (3) The FM, PAM-FM, PPhM, PPhM-AM systems [illegible] noise rejection than binary-code digital systems (such as PCM-AM or [illegible] noise rejection of analog methods with optimal band is roughly equivalent [illegible] rejection of discrete methods with orthogonal signals; (4) An optimal period of [illegible] regulation exists in multichannel time-division telemetry systems; this period [illegible] minimum error due to time and level quantization of noise and to other factors [illegible] pulse-amplitude modulation; PCM-pulse-code modulation; PPhM-pulse-phase modulation. Orig. art. has: 7 figures, 35 formulas, and 3 tables.

SUB CODE: 09 / SUBM DATE: 08Jan66 / ORIG REF: 010

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ACC Nr. AM7003440 Monograph

Shastova, Galina Alekseyevna

Coding and interference rejection of remotely controlled data transmission (Kodirovaniye i pomekhoustoychivost' peredachi telemekhanicheskoy informatsii) Moscow, Izd-vo "Energiya", 66. 0453 p. illus., biblio. Errata slip inserted 9,000 copies printed

TOPIC TAGS: information theory telemetry, remote control, probability theory, information transmission, coding, modulation, interference, interference immunity, interference rejection, data transmission, information transmission

PURPOSE AND COVERAGE: The author discusses the interference rejection and efficiency of various data transmission methods in telemetry and remote control. A description and classification is given of coding and modulation methods used in industrial telemechanics, and the efficiency and band widths of data transmission systems is defined. The discussion stresses problems of interference rejection in coding and modulation systems characterized by normal fluctuations in interference and a limited delay in data transmission. Ways of utilizing excess (redundant) data to increase the efficiency of a system's interference rejection are analyzed. The book is intended for engineers and students working

UDC: 621.398
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Card 1/4

in the field of telemechanics with a background in the theory of probability and information. The author thanks R. R. Vasil'yev, V. A. Kashirin, Yu. I. Chugin, L. B. Venchkovskiy, V. M. Pomazan, and V. V. Naumchenko of the Institute of Automatics and Telemechanics, headed by V. A. Il'in, and L. M. Fink, A. M. Fomin, V. A. Zakharov, N. A. Masanov, O. Ya. Senin, and M. V. Churov for their assistance in the preparation of the work. The text includes tables, figures, and equations.

TABLE OF CONTENTS [abridged]:

ACC NR: AM7003440

Card 3/4

ACC NR: AM7003440

SUB CODE: 09/ SUBM DATE: 22Aug66/ ORIG REF: 123/ OTH REF: 008

Card 4/4

ACC NR: AT6022306 SOURCE CODE: UR/0000/66/000/000/0033/0046

AUTHOR: Shastova, G. A.; Pomazan, V. M.

ORG: none

TITLE: Error correcting codes based on the minimax criterion

SOURCE: Vsesoyuznaya nauchnava sessiya, posvyashchennaya Dnyu radio. 22d, 1966. Sektsiya telemekhaniki. Doklady. Moscow, 1966, 33-46

TOPIC TAGS: error correcting code, automatic control theory, remote control, probabilistic automation, date transmission

ABSTRACT: In connection with the development of more complex remote-control systems for such installations as petroleum pipelines, gas pipelines, and power stations, the problem of reliability of data transmission over standard telegraph and telephone channels acquires a special importance. In such channels the method of transmitting elementary signal P_1 is usually given; as a result the selection of a data coding method is reduced to the selection of an error detecting and correcting method. In the case in which the method of transmitting and receiving binary elementary signals is given, the effect of interference is usually determined by the average probability of error occurrence in elementary signal P_1 and by statistical characteristics of the error chain. In this study a new mathematical model of the error chain is proposed which differs from the existing ones in that a poor state of transmission channel

Card 1/2

ACC NR: AT6022306

can be represented by a certain random error probability which is constant during the duration of the poor state but which varies from state to state and lies within P_{1min}-P_{1max}. The density of probable values of P_1 lying within these limits may also be given; in the special case this density may be constant. In the case in which P_{1min}-P_{1max} = h the proposed mathematical model may become a Hilbert model. A limited delay in the data transmission is characteristic in telemechanics. This delay may be several times shorter than the duration of a single poor state of the transmission channel. Under these conditions a special requirement is imposed on data transmission which stipulates that the probability of occurrence of certain errors, e.g., undetected errors, must be low for the worst state of the channel. The dependence of the probability of occurrence of a most dangerous error in P_1 is investigated, and the worst value of P_1 as well as the worst maximum value of a probable undetected error are determined from this viewpoint. A more interference-free code will be a code in which the maximum of the error is minimum, e.g., minimax $P_{undetected\ error}$. Such a criterion for estimating the stability of the code is termed minimas. Orig. art. has: 1 table and 4 figures.

SUB CODE: 09/ 13/ SUBM DATE: 24Mar66/ ORIG REF: 006/ OTH REF: 007

Card 2/2

ACC NR: AT6022310 SOURCE CODE: UR/0000/66/000/000/0060/0065

AUTHOR: Shastova, G. A.; Koyekin, A. I.

ORG: none

TITLE: Selecting optimizing criteria for remote control systems

SOURCE: Vsesoyuznaya nauchnaya sessiya, posvyashchennaya Dnyu radio. 22d, 1966. Sektsiya telemekhaniki. Doklady. Moscow, 1966, 60-65

TOPIC TAGS: remote control, automatic control theory, optimal automatic control, information processing

ABSTRACT: Optimization of a control process involves, as a rule, a determination of such a law of processing information on input control actions and random external disturbances for which the extremum of some functional characterizing the control process is assured. A control algorithm which assures, under conditions of full information and absolute system's reliability, the extremum of the functional is termed ideal control algorithm. The control efficiency, which is obtained when the ideal algorithm and zero cost of the system are applied, will represent an ideal control efficiency. However, under real conditions some means are expended and information on the controlled object is distorted due to failure of the equipment, interference, etc. Thus, the problem arises of constructing an optimum control system under conditions of distorted information. This problem is termed the problem of optimum reali-

Card 1/2

ACC NR: AT6022310

zation of the control algorithm. Formulas are derived for determining the real control efficiency and efficiency losses. Orig. art. has: 12 formulas.

SUB CODE: 13/ SUBM DATE: 24Mar66/ ORIG REF: 005

09/

Card 2/2

SHASTUN, S. I.

GLAGOLEV, N.A.; SHASTUN, S.I.

Device for grinding conical surfaces. Stan. i instr. 25 no.10: 32-33 O '54. (MLRA 7:11)
(Grinding and polishing)

121-8-15/22

AUTHOR: SKRYPCHENKO,S.N., SHASTUN,S.I.

TITLE: Device for Machining Gear Racks. (Prisposobleniye dlya obrabotki zubchatykh reyek.)

PERIODICAL: Stanki i Instrument, 1957, Vol. 28, Nr 8, pp. 37-37 (USSR)

ABSTRACT: In the "Korsun - Shevchenko" machine factory a device for the slotting of rack-teeth on a slotting machine was worked out and introduced in production. An illustration shows this device. It consists of a cast-iron case mounted on the slotting machine in which in a dovetail-guide a steel ruler moves with a rigidly fixed model rack (modulus and length correspond to that to be worked). On the slotting-machine spindle on the thorn a cogwheel is mounted which is coupled with the model rack. The adjustment of the slotting machine is carried out in dependence on the number of teeth of the cogwheel. The workpiece is fixed to the ruler by means of the castings. Slotting is carried out by means of a tappet in one stroke all through. For the passage of the ruler a rectangular opening is provided in the supporting frame of the slotting machine.

Card 1/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548710008-7"

121-8-15/22

Device for Machining Gear Racks.

ASSOCIATION: Not given
PRESENTED BY:
SUBMITTED:
AVAILABLE: Library of Congress

Card 2/2

SHASTUN S. I.

AUTHOR: Sidorenko, A.V., and Shastun, S.I., Engineer 117-58-5-10/24

TITLE: Device for Grinding Conical Clutches and Discs (Prisposobleniye dlya pritirki konusnykh muft i diskov)

PERIODICAL: Mashinostroitel', 1958, Nr 5, pp 25 - 27 (USSR)

ABSTRACT: The Mechanical Plant in Nazhim has adopted a lapping machine for grinding conical clutches and discs of steel 20X with subsequent cementation and hardening up to R_s = 52 ÷ 58. The entire machine with all component parts is mounted on a bed plate. It consists of an electric motor, a worm reducer and a reversing gear which transmits the movement to a right and left hand shaft on which are mounted the discs and clutches to be ground; a tail stock with a flywheel is fixed on the end of each shaft. The special feature of the grinding operation is not only the reversed rotation of the lapped parts in relation to each other but also the radial displacement of the sections of the surfaces during lapping. In order to carry out inspections during operation, a support is provided, holding frame which permits the set (clutch and discs) to be disengaged for checking or refilling with grinding mixture. The author claims that adoption of this machine has not only improved the quality of the work considerably

Card 1/2