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LH

TRUSS MOVING ON PILES PROPOSED AS MEANS OF TRANSPORT IN SIBERIA (U)

TRANSPORTATION

The Russian periodical Sotsialisticheskaya Industriya on 26 July 1979 carried an article authored by V. Istomin which briefly recounts a conversation with Candidate of Technical Sciences I. V. Beskin at a recent conference on prospective types of transportation. Beskin and his colleagues at the Bratsk affiliate of the Irkutsk Polytechnical Institute are working on new types of transportation for Siberia and the Far North. Explaining that in addition to environmental problems created in permafrost terrain by motor vehicles, tractors and caterpillar vehicles, which damage the surface layer of the tundra, there are also complex technical and

SG1A [redacted] 17 Aug 79 **SECRET**

supply problems involved in the building and maintenance of roads in these areas, Beskin commented on a means of transportation called a "fermobil" (truss vehicle) as a solution to these problems. It is a vehicle designed in the form of a single-truss bridge. It would ride on a series of sets of two or three piles driven into permafrost ground, the tops of the piles being about two meters above the ground. Short guide tracks for the roller wheels of the truss vehicle would be installed on top of each set of piles. The potential load capacity of the "fermobil" could be as large as 100 tons. The vehicle's size would determine the distance between the sets of piles -- 50 meters in the case of a vehicle 120 meters long, for example.

The economy of this transport innovation is cited as one of its potential advantages. The cost of building the system of pile supports for the "fermobil" has been estimated at 50,000 rubles per kilometer. Its designers believe that the driving of the piles could be accomplished relatively simply by a special machine running along the piles already installed. The same piles could also be used for communications and power transmission lines, as well as oil pipelines and gas mains.

SG1A [redacted]

(UNCLASSIFIED)

[redacted]

SG1A

[redacted]

SUBJ
MPR: POLYTECHNICAL INSTITUTE, SOVIET SCHOOL COOPERATE
OW0600010
ULAANBAATAR MONTSAME IN ENGLISH 1706 GMT 5 NOV 85
((TEXT)) ULAANBAATAR, NOVEMBER 5 (MONTSAME) -- CLOSE TIES BETWEEN THE MONGOLIAN POLYTECHNICAL INSTITUTE (MPI) AND THE IRKUTSK POLYTECHNICAL INSTITUTE (IPI) (SOVIET TOWN IN SIBERIA) ARE A STRIKING EVIDENCE OF THE FRUITFUL MONGOL-SOVIET COOPERATION IN THE FIELD OF HIGHER EDUCATION.

3226401

FIRST CONTACTS BETWEEN THE MPI AND THE IPI WERE ESTABLISHED IN 1967 AND SINCE THEN THESE TIES HAVE BEN DEVELOPED INTO ACTIVE COOPERATION IN THE SPHERE OF SCIENTIFIC RESEARCHES. THE JOINT MONGOL-SOVIET KERULEN GEOLOGICAL EXPEDITION HAS BEEN SUCCESSFULLY FUNCTIONING FOR ALREADY 10 YEARS, WHICH IS MAINLY ENGAGED IN PROSPECTING AND LOCATING NATURAL RESOURCES IN CENTRAL AND EASTERN MONGOLIA. SCIENTIFIC CONFERENCES TO REVIEW THE ACTIVITIES OF THIS EXPEDITION ARE BEING REGULARLY HELD IN ULAANBAATAR AND IRKUTSK RESPECTIVELY. AT PRESENT, TEACHERS AND STUDENTS OF THE TWO INSTITUTIONS ARE WORKING HARD TO SOLVE IMPORTANT NATIONAL ECONOMIC TASK IN MONGOLIA: TO COMPREHENSIVELY STUDY ROCKS IN THE AREAS OF LARGE OPERATIONAL DEPOSITS IN THE COUNTRY TO DETERMINE AN OPTIMUM PARAMETER FOR BOREBLASTING OPERATIONS.
THE COOPERATION OF THE TWO INSTITUTIONS IS CONDUCIVE TO IMPROVING THE QUALITY OF TRAINING NATIONAL TECHNICAL PERSONNEL OF MONGOLIA.
IPI IS DIRECTLY INVOLVED IN TRAINING SPECIALISTS FOR THE MPR. FOR THIS SERVICE IPI WAS AWARDED WITH THE ORDER OF RED LABOUR BANNER OF THE MPR.

SG1A [redacted]

BT
#0336

FIRM NO.	CLASSIFICATION	PROCESSING DATE
	UNCLASSIFIED	JUN 1962 FBG

CODE	COUNTRY	PS	AF CHART	ACTIVITY CODES
491	USSR	1131		4M 403

LOCATION	S/T	NAME OF INSTALLATION	PL. NO.
IRKUTSK		POLYTECHNICAL INST	

DATE/INFO DA	MO	YR	DATE/SOURCE DA	MO	YR	CONTROL NO.	SOURCE	EVAL
-	-	-	26	DEC	61		[redacted]	

PRINCIPAL RADIOTELESCOPES OF THE SOVIET UNION

SG1A

OVER

14. IRKUTSK POLYTECHNICAL INSTITUTE

Alternate Name:
Subordinate to:
Location: Irkutsk, RSFSR
52° 17' N- 104° 20' E

Functional Description

Technical Description

Personalities

Other Information

Approved For Release 2000/08/07 : CIA-RDP96-00787R000500280003-6

In 1956 a polytechnical Institute is being opened in Krasnoyarsk and a university is being established in Yakutsk, and Valdivostok University is being reopened.

Research laboratories are being organized in the leading technical schools for work in connection with the most important problems of specific branches of science and the national economy of the USSR. In Saratov, Rostov, and Tomsk Universities, for example, nuclear laboratories equipped with accelerators (cyclotrons and betratrons) of various capacities will be set up for studying atomic nuclei, along with laboratories for the study of cosmic rays and special semiconductor laboratories.

The Moscow Nonferrous Metals and Gold Institute, the Leningrad Mining Institute and the Northern Caucasus, Kazakh and Irkutsk Ore Mining Institutes, which are conducting research in nonferrous metallurgy, have established close links with enterprises and with the Ministry of Nonferrous Metallurgy. The ministry is now strengthing the higher schools' laboratory facilities and is giving expert assistance in the selection of the most topical themes for research.
(Izvestiya, Aug 23, 1956)
SO: Current Digest of the Soviet Press, Vol VIII, no 34, 1956, Unclassified.
Complete article on file in Ministry of Higher Education folder. amh/pr

ANGARSK or - Irkutsk Mining & Metall. Inst - 619

Folder on Mining & Metallurgy Inst - MHE

Angarsk

GENERAL -- Moscow, Ekonomicheskaya Gazeta, 8 Jun 60

In January 1959, the population of Angarsk was 132,000. Up to 100,000 sq m of housing per year is put in use, and during the Seven-Year Plan period, housing will increase 150 percent in Angarsk. A branch of the Irkutsk Mining and Metallurgical Institute, with chemical, machine-building, and construction faculties, and a Scientific Research Institute of Occupational Diseases and Labor Protection will be open for the new school year. The Irkutskiy Sovnarkhoz is creating a mechanization and automation institute of the chemical industry in Angarsk. It is planned to establish a chemical and engineering institute in the city.

MHE USSR

Irkutsk: Polytech Inst - 2

USSR REGIONAL AFFAIRS
June 7, 1956

FBIS# 111

IRKUTSK MINING SCHOOL OPENS ENROLLMENT

Khabarovsk, Krai Regional Service, in Russian, June 6, 1956, 2135 GMT--H

(Text)

The Irkutsk Mining and Metallurgical Institute has announced enrollment of students for the 1956-57 academic year in the following branches: the branch for the development of ore layers, coal deposits, and deposits of natural resources; the branch for the development of concentrated (rudnykh) and dispersed (rassypnykh) natural resources, and mining electromechanics; the nonferrous metallurgy branch; and branches for the concentration of natural resources, machine-building technology, metal-cutting machine tools and instruments, industrial and civil construction of the metallurgical faculty, geological prospecting for natural resources, techniques of prospecting for natural resources, and mine surveying.

Men and women under 35 years of age are eligible. Documents required for enrollment are a detailed autobiography, an original middle school certificate three 3 x 4 centimeter photos, certificate of employment stating length of employment, occupation, and speciality signed by the chief of the enterprise and the chief of the department of cadres, form No. 286 of the certificate of health, residence certificate, and a draft card for persons subject to military service. The certificate of registration (pripisnoye svidetelstvo) and the passport must be presented personally. The faculty and the branch desired must be stated in the application.

Technical school graduates will be accepted in the institute after the expiration of a 3-year probation period in production (proizvodstvennyy stazh) set for them by law. An exception will be made for those persons who are included in 5 percent of specified students graduated from technical schools.

Entrance examinations are in written Russian and literature and oral mathematics, physics, drawing, and foreign-language for construction branches, and in written Russian and literature and oral mathematics, chemistry, physics, and foreign language for other branches.

Stipends ranging from 290 to 395 rubles will be granted students making good progress in all subjects in the first term, and stipends ranging from 395 to 480 rubles to higher term students. Twenty-five percent higher stipends will be granted to excellent students.

Applications for enrollment will be accepted from June 20 until July 31 and must be addressed to the reception committee at the following address: No. 3 Krasnaya Zvezda Street, Irkutsk city.

W E S T E R N U S S R

UKRAINIAN HANDBOOK--The regular edition of the Ukrainian AGITATOR'S HANDBOOK of June 1 contains the following articles: "Step Up Competition Among Agricultural Workers," "Oxygen Serves Metallurgy," by an engineer of the Zaporozhye steel plant (zavod zaporizhstal), "Vocational Training For Students," by a secondary school director, "New success in the Policy of Peaceful Coexistence," devoted to the French-Soviet talks, "Prospects for the Development of the Donbas During the Sixth Five Year Plan," and information on the use of ferroconcrete props in coal mines. (Kiev, Ukrainian, June 1, 1956, 1500 GMT--M)

TRANSCARPATHIAN HANDBOOK--The 10th edition of the Transcarpathian Obkom AGITATOR's HANDBOOK published June 1 features articles: "Party and Government Care for the People's Well-Being," "To Improve Implementation of Progressive Experiences in Production," and "Friendship and Cooperation Among Socialist Countries," and correspondence by an agronomist "Carry Out Tending of Crops in Exemplary Manner." (Uzhgorod, Ukrainian, June 1, 1956, 1520 GMT--M)

PARTY MEMBERS--Golovnyanskiy Raikom recently held a plenum to discuss education of young Communists. It was revealed at the plenum that during the past year the rayon Party organization increased by 72 persons, among them 22 kolkhoz workers. Nearly 20 persons, mostly kolkhoz workers, became Party members in 1956. (Lutsk, Ukrainian, June 6, 1956, 0520 GMT--M)

RR AGRICULTURAL CONFERENCE--The first congress of agricultural specialists of the Ukraine has been held in Kiev. A report by Gureyev, First Deputy Chairman of the Council of Ministers of the Ukrainian SSR, on the tasks of Ukrainian agricultural specialists in carrying out the decisions of the 20th CPSU Congress was debated. Speeches were made by 118 people. (Moscow, Home, June 1, 1956, 0400 GMT--L)

LVOV LANDSCAPING CONFERENCE--The second conference on landscaping conveyed by the Presidium of the All-Union Geographic Society, Lvov University, and the Lvov branch of the All-Union Geographic Society opened in Lvov May 31. More than 100 scientists and geography teachers of higher educational institutions in Moscow, Leningrad, Kiev, Voronezh, Kharkov, Tbilisi, Lvov, and Riga are taking part. The conference will hear and discuss more than 30 reports on general questions of the landscaping program, cartography, and the problems of studying the landscape of the western oblasts of the Ukrainian SSR. The conference will last several days. (Kiev, Russian, June 1, 1956, 0730 GMT--M)

ESTONIAN NUCLEAR PHYSICS LABORATORY--The Council of Ministers of Estonia has assigned 20 million rubles for a new laboratory at Tartu University including a laboratory for nuclear physics. (Moscow, English, June 6, 1956, 1730 GMT--E)

IRKUTSK INSTITUTE OF MINING AND METALLURGY

3226407

The Irkutsk Institute of Mining and Metallurgy is subordinate to the Ministry of Higher Education, USSR, the Main Administration of Higher Educational Institutions of Mining and Metallurgy. It has courses in Geology and prospecting, mining, and metallurgy.. It is located in Irkutsk Oblast, Irkutsk, ulitsa Krasnoy Zvezdy, 5.

SO: CIA FDD Summary 53, 19 March 1952, Secret, Info 1950/52

[Page 446]

Bol'shaya Sovetskaya Entsiklopediya Vol 18 1953

IRKUTSK MINING AND METALLURGICAL INSTITUTE

Higher educational institution in eastern Siberia, created in May 1930 in the city of Irkutsk. Has 3 departments (1951): mining, with the specialties: working of deposits of useful minerals and mining electromechanics; geological prospecting, with the specialties: geology and prospecting for deposits of useful minerals, the technique of prospecting for deposits of useful minerals, mine surveying and geophysical methods of prospecting for deposits of useful minerals; and metallurgy, with the specialties: metallurgy of nonferrous metals, dressing of useful minerals, and the technology of machine building. The institute had 1,700 students in 1951. During the period 1930-1951 the institute graduated 1,880 engineers.

11/491

3226401

498 P.M.

29 MAR 1963

USSR	OFFICIAL USE ONLY	FBIS H 62 13353

(Editor's note: The following, entitled "Let Us Discuss This," is from the feature program "Evening Irkutsk" and consists of notes by "Evening Irkutsk" correspondents Leonid Bogdanov and Sergey Prokhorov entitled "Scientists and Students.") In reading the materials of the November plenum of the CPSU Central Committee one notes the speech by the chairman of the presidium of the Siberian department of the USSR Academy of Sciences, Lavrentyev. In his speech this prominent scientist stated that the training of scientific cadres is one of the most urgent problems and is of particular significance to Siberia and the Far East. What is the situation in this regard in Irkutsk? It must be noted that in the past several years a considerable team of scientists has appeared in the city. In 1962 alone more than 20 Irkutsk residents became candidates and doctors of sciences. All scientific research institutes of the oblast capital are engaged in the training of highly qualified cadres. Scientific cadres are also being trained by the city's higher educational establishments. The Irkutsk polytechnical institute is one of the largest higher educational establishments of the city, having more than 10,000 students and 500 instructors. It is evident that there is a great need for scientist-instructors. The institute takes great interest in the training of cadres. In the past 2 years alone more than 40 young, capable instructors were assigned for postgraduate work to the best institutes of Moscow and Leningrad. They will return to the institute as candidates of sciences in 2 or 3 years. (Continued on Card 62 H 13354)

FORM 12-60 326a USE PREVIOUS EDITIONS.

FORM 12-60 326a USE PREVIOUS EDITIONS.

5 COPIES

FIRM NO. 3226401	CLASSIFICATION FOR OFFICIAL USE ONLY			PROCESSING DATE 20 MAR 1963 P.M.
CODE 491	COUNTRY USSR	PS 11	AF CHART	ACTIVITY CODES (—)
LOCATION		S/T	NAME OF INSTALLATION	PL. NO.
DATE/INFO DA MO YR	DATE/SOURCE DA MO YR		SG1A	PF
- - -	20 DEC 62	CONTROL NO.	SOURCE [redacted]	EVAL

HELP WANTED:

Stokers, painters, yardmen, and typists -- by the Irkutsk polytechnical institute; apply Studgorodok (student township), ulitsa Lermontova 83.

(Irkutsk Domestic 0900 GMT 20 December 1962)

FORM 12-60 326a USE PREVIOUS EDITIONS.

FORM 12-60 326a USE PREVIOUS EDITIONS.

Approved For Release 2000/08/07 : CIA-RDP96-00787R000500280003-6

PM

FIRM NO. 3226401	CLASSIFICATION FOR OFFICIAL USE ONLY			PROCESSING DATE 20 APR 1963
CODE 491	COUNTRY USSR	PS 11	AF CHART	ACTIVITY CODES (-)
LOCATION		S/T	NAME OF INSTALLATION	PL. NO.
DATE/INFO DA MO YR: - - -	DATE/SOURCE DA MO YR: 28 NOV 62		SG1A	PF
		CONTROL NO.	SOURCE [redacted]	EVAL

HELP WANTED:

Senior bookkeeper -- by the capital construction department of the polytechnical institute; apply Studgorodok, ulitsa Lermontova 73, building E, room 108.

(Irkutsk Domestic 0900 GMT 28 November 1962)

FORM 12-60 326a USE PREVIOUS EDITIONS.

3276401

JUN 1962 498 FBG

USSR	**OFFICIAL USE ONLY**	FBIS 62 H 3707

Anatoliy Andreyevich Yegoshin, rector of the Irkutsk polytechnical institute, states that in the new academic year the institute will organize training courses for engineers of new skills (spetsialnostyam). According to plan the institute will enroll 3,350 students in the first course in 1962. They will be trained in 31 skills and receive general technical training. Almost 2,000 people will receive on-the-job training at the institute. By the end of 1962 the institute will expand the network of educational and consultative points and will increase enrollment in evening departments in Cheremkhovo, Angarsk, and Bratsk. Organizational and methodical work will be accelerated in Zheleznogorsk and at the construction site of the Bratsk industrial lumbering complex where many youth are anxious to obtain higher education without leaving their work. (Irkutsk Domestic 1400 GMT 7 April 1962)

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3226401

341A

15 MAY 1963 P.M.

USSR	OFFICIAL USE ONLY	FBIS 62 H 12427

Representatives of higher educational establishments and scientific research enterprises of Irkutsk and other cities of the Soviet Union frequently visit mines and open-face mines of the Cheremkhovo coal trust. Representatives of the Irkutsk polytechnical institute are working on designing new types of drilling bits which are more suitable for work under present conditions. They have already worked out five types of such bits. Representatives of the Leningrad mine survey institute recently completed work on the compilation of recommendations for the construction of buildings and structures on the terraces of worked out (open-face mines?). The collective of the Ural institute of coal chemistry is working on a mixture (shikhtu) for obtaining coke (kampanentom) from Cheremkhovo semicoke for use in the future at the Tayshet metallurgical plant. The Irkutsk (Irdevetmet?) institute has prepared recommendations on the short-delay (korotko-zamedlenomu) blasting of coal rock. A group of scientific workers of the Kuznetsk scientific research institute will work on a plan for the automation of concentrating factories. (Irkutsk Domestic 0900 GMT 7 December 1962)

More than 10,000 leading workers, farm workers, demobilized soldiers, and secondary school graduates have applied for entrance examinations to higher educational establishments which start in Irkutsk 1 August. The Irkutsk polytechnical institute received 5,300 applications in 1961 from youth in Irkutsk Oblast and other oblasts in Eastern Siberia, with the majority of youth applying for the machine building, industrial and civil construction, and metallurgical faculties. (Irkutsk Domestic 1400 GMT 1 August 1961)

NEW HIGHER EDUCATIONAL ESTABLISHMENTS ARE (PLANNED?) IN THE NEXT FEW YEARS IN THE CITIES OF THE EASTERN AREAS OF THE COUNTRY. THE BIGGEST WILL BE THE IRKUTSK POLYTEHNICAL INSTITUTE AND THE COMPLEX OF HIGHER EDUCATIONAL ESTABLISHMENTS IN KHABAROVSK, WHICH INCLUDES LUMBER TECHNOLOGY, MOTOR HIGHWAY, AND BUILDING INSTITUTES. THE MAIN BUILDING OF THIS SETTLEMENT IS INTENDED FOR 6,000 STUDENTS. AT THE IRKUTSK POLYTECHNICAL INSTITUTE, WHICH IS BEING BUILT IN A NEW QUARTER ON THE LEFT BANK OF THE ANGARA, 7,000 STUDENTS WILL STUDY. ITS BUILDINGS WILL OCCUPY 60 HECTARES. AT PRESENT AT GIPRO-VUZ (STATE PLANNING INSTITUTE FOR HIGHER EDUCATIONAL ESTABLISHMENTS) PLANS FOR 98 NEW ESTABLISHMENTS ARE BEING DEVELOPED.
(MOSCOW 0600 GMT 4 APRIL 1961)

16.3400

S/140/62/000/004/001/009
C111/C333

AUTHOR: Voyiokov, V. I.

TITLE: On the approximative integration of non-linear differential equations of an oscillating motion with one degree of freedom

PERIODICAL: Vysshiye uchebnyye zavedeniya. Izvestiya. Matematika, 1962, no. 4, 19-32

TEXT: In order to solve

$$\ddot{x} + x + \alpha f(x, \dot{x}) = 0 \qquad (1)$$

one searches the solution of the auxiliary equation

$$\ddot{x} + x + \alpha f(x, \dot{x}) + \alpha^n \lambda x = \alpha^{n+1} x, \qquad (1.1)$$

with the set-up

$$x = x_0 + \alpha x_1 + \alpha^2 x_2 + \ldots + \alpha^i x_i + \ldots \qquad (1.2)$$

where n=2, if in all terms $a_{ij} x^i \dot{x}^j$ of $f(x,\dot{x})$ the sum i+j is even;

Card 1/4

otherwise it is n=1. After introducing (1.2) into (1.1) and comparing the coefficients at equal powers of α one obtains for the determination of x_o, x_1, x_2, ... the equations

$$\ddot{x}_o + x_o = 0 \qquad (1.4)$$

$$\ddot{x}_1 + x_1 = -f_o(x_o, \dot{x}_o) - \lambda x_o \qquad (1.5)$$

etc. Out of (1.4) there follows

$$x_o = a_o \cos t + b_o \sin t. \qquad (1.8)$$

Then left hand of (1.5) is expanded in a Fourier series:

$$\ddot{x}_1 + x_1 = -\left[M_o(a_o, b_o) + \lambda a_o\right] \cos t - \left[N_o(a_o, b_o) + \lambda b_o\right] \sin t -$$

$$- \sum_{k=2}^{l_1} (m_{k,1} \cos kt + n_{k,1} \sin kt) \quad . \qquad (1.9)$$

In order x_1 to be periodic, one demands

$$M_o(a_o, b_o) + \lambda a_o = 0$$
$$N_o(a_o, b_o) + \lambda b_o = 0 \qquad (1.10)$$

etc. After x_o, x_1, x_2, ... x_{i-1} having been determined, one determines x_i out of

$$\ddot{x}_i + x_i = -f_{i-1}(x_o, x_o, \ldots, \dot{x}_{i-1}) - \lambda x_{i-1} + x_{i-2} . \qquad (1.7)$$

The convergence of the solution thus obtained is proved. The solvability of the system (1.10) with $\alpha = \lambda$ is investigated. One shows that the solvability of the corresponding systems at the determination of x_2, x_3,.. depends on one and the same double-row determinant Δ_1. It follows that $\Delta_1 \neq 0$ is necessary and sufficient for the existence of a 2π.-periodic solution of (1). It is shown that by an analoguous method one is also able to calculate forced oscillations

$$\ddot{x} + x + \alpha f(x, \dot{x}) = \varphi(t), \qquad (2)$$

where $\varphi(t)$ is periodic. As an example for application one discusses the Duffing equation; one points to the existence of several periodic solutions.

ASSOCIATION: Irkutskiy politekhnicheskiy institut (Irkutsk Polytechnical Institute)

SUBMITTED: June 8, 1959

Approved For Release 2000/08/07 : CIA-RDP96-00787R000500280003-6

FIRM NO. 3226401

CLASSIFICATION FOR OFFICIAL USE ONLY

CARD NO. 6130231

CODE 491 COUNTRY USSR

LOCATION Irkutsk

CODE 1131 POLITICAL SUB-DIVISION AND ECONOMIC REGION

INDUSTRIAL CATEGORY CODES 40

PROD

DATE/INFO DA.	MO.	YR.	DATE/SOURCE DA.	MO.	YR.	EVAL.	MN.&NO.	AF CHART	STATUS	TYPE
			23	3	56					

CIA NO. AND SOURCE FBIS No. 58

MAJOR PRODUCT

NAMES 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2

Polytechnical Inst

There will be many new higher educational establishments built in Siberia. In Irkutsk a group of three institutes - mining, politechnical, and engineering-construction- will be set up. The Altai Agricultural Institute and the Institute of Agricultural Machine Building are organized in Barnaul. Livestock breeders of Buryat-Mongolia can learn in the new Institute of Zootechnology under construction in Ulan-Bator.

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OFFICIAL USE ONLY

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USSR

FBIS - 159199

The first scientific establishment has opened in Angarsk: the chemistry research institute of the East-Siberian branch of the USSR Academy of sciences has been moved here from Irkutsk. Ever more scientific establishments are built in Irkutsk Oblast. Institutes of Geology and Biology will be built in the eastern suburbs of Irkutsk next to the polytechnical and agricultural institutes, and a large students settlment is under construction.
(Moscow, Home, Aug. 8, 1956) 0500 GMT---L.)

FIRM NO	CLASSIFICATION		PROCESSING DATE
32284/01	UNCLASSIFIED		30 JUL 1963 PPM

CODE	COUNTRY	PS	AF CHART	ACTIVITY CODES
491	USSR	11		498

LOCATION	S/T	NAME OF INSTALLATION	PL. NO.

DATE/INFO DA MO YR	DATE/SOURCE DA MO YR			PF
- - -	6 JUL 62	CONTROL NO.	SOURCE KOMSOMOL'SKAYA PRAVDA # 155 (11399)	EVAL

LIST OF FACULTIES IN IRKUTSK AND BRANCH FACULTIES IN OTHER CITIES

Иркутский ПОЛИТЕХНИЧЕСКИЙ ИНСТИТУТ

принимает на очные, вечерние, общетехнические и заочные факультеты и Дневного обучения

I. Горный факультет по специальностям: разработка месторождений полезных ископаемых, горная электромеханика, маркшейдерское дело, электрические станции, электроснабжение промышленных предприятий и городов, электропривод и автоматизация промышленных установок.

II. Металлургический факультет по специальностям: металлургия цветных металлов, обогащение полезных ископаемых, автоматизация производственных процессов, технология пластических масс, технология основного органического синтеза и синтетического каучука, промышленная теплоэнергетика, теплоэнергетические установки электростанций, технология электрохимических производств, технология силикатов, технология нефти и газа.

III. Геологоразведочный факультет по специальностям: геология и разведка месторождений полезных ископаемых, техника разведки месторождений полезных ископаемых, геофизические методы поисков и разведки месторождений полезных ископаемых.

OVER

IV. Строительный факультет по специальностям: промышленное и гражданское строительство, производство бетонных и железобетонных изделий и конструкций для сборного строительства, теплогазоснабжение и вентиляция, водоснабжение и канализация, автомобильные дороги.

V. Механический факультет по специальностям: технология машиностроения, металлорежущие станки и инструменты, технология и оборудование сварочного производства, строительные и дорожные машины и оборудование, машины и аппараты химических производств, автомобильный транспорт, эксплуатация самолетов и двигателей.

Вечернего обучения

1. Вечерний факультет в г. Иркутске: технология машиностроения, металлорежущие станки и инструменты, технология и оборудование сварочного производства, строительные и дорожные машины и оборудование, промышленное и гражданское строительство, производство бетонных и железобетонных изделий и конструкций для сборного строительства, теплогазоснабжение и вентиляция, водоснабжение и канализация, автомобильный транспорт, электроснабжение промышленных предприятий и городов, промышленная теплоэнергетика, электрические станции, теплоэнергетические установки электростанций, общетехническая подготовка.

II. Вечерний факультет в г. Ангарске: технология машиностроения, металлорежущие станки и инструменты, промышленное и гражданское строительство, технология пластических масс, производство бетонных и железобетонных изделий и конструкций для сборного строительства, теплогазоснабжение и вентиляция, водоснабжение и канализация, технология силикатов, технология электрохимических производств, автоматизация производственных процессов, машины и аппараты химических производств, общетехническая подготовка, технология основного органического синтеза и синтетического каучука, электроснабжение промышленных предприятий и городов, электрические станции, промышленная теплоэнергетика, теплоэнергетические установки электростанций, технология пластических масс.

III. Вечерний факультет в г. Черемхове: разработка месторождений полезных ископаемых, горная электромеханика, технология машиностроения, металлорежущие станки и инструменты, промышленное и гражданское строительство, общетехническая подготовка.

IV. Общетехнический факультет в г. Братске: промышленное и гражданское строительство, общетехническая подготовка.

Заочное обучение

Общетехнический факультет в г. Братске: строительные и дорожные машины и оборудование, промышленное и гражданское строительство, производство бетонных и железобетонных изделий и конструкций для сборного строительства, общетехническая подготовка.

OVER

FORM 12-60 326 USE PREVIOUS EDITIONS. ☆ U.S. GOVERNMENT PRINTING OFFICE : 1962 O - 639572 (20)

Заочный факультет в г. Иркутске: геология и разведка месторождений полезных ископаемых, геофизические методы поисков и разведки месторождений полезных ископаемых, техника разведки месторождений полезных ископаемых, горная электромеханика, промышленное и гражданское строительство, электрические станции, промышленная теплоэнергетика, машины и аппараты химических производств; автомобильные дороги, производство бетонных и железобетонных изделий и конструкций для сборного строительства, теплогазоснабжение и вентиляция, водоснабжение и канализация, автомобильный транспорт, строительные и дорожные машины и оборудование, электроснабжение промышленных предприятий и городов, теплоэнергетические установки электростанций, технология нефти и газа, электропривод и автоматизация промышленных установок.

Учебно-консультационный пункт в г. Улан-Удэ: строительные и дорожные машины и оборудование, промышленное и гражданское строительство, производство бетонных и железобетонных изделий и конструкций для сборного строительства, теплогазоснабжение и вентиляция, водоснабжение и канализация, технология и оборудование сварочного производства, промышленная теплоэнергетика, автомобильные дороги, автомобильный транспорт, электрические станции, технология машиностроения, металлорежущие станки и инструменты.

Прием заявлений производится по правилам, являющимся общими для всех вузов страны: на обучение **с отрывом от производства по 31 июля**, вступительные экзамены **с 1 по 20 августа; на вечерние факультеты по 20 августа**, вступительные экзамены **с 21 августа по 20 сентября; на заочный факультет** (включая заочное обучение общетехнического факультета в г. Братске и УКП в г. Улан-Удэ) **до 25 июля**, вступительные экзамены **по 31 июля и с 1 по 20 октября; на заочный факультет** геологоразведочных специальностей проводится **с 1 ноября по 15 января**, вступительные экзамены **с 16 января по 15 марта.** Заявления подаются на имя ректора института с приложением документов, перечисленных в правилах приема.

Адрес института и факультетов:

I. г. Иркутск, ул. Лермонтова, 73. По этому адресу следует направлять заявления и документы поступающим на дневное обучение, а также на вечерний и заочный факультет в г. Иркутске.

II. г. Ангарск, ул. Московская, 19. По этому адресу принимаются документы от поступающих на Ангарский вечерний факультет.

III. г. Черемхово, ул. Куйбышева, 44. По этому адресу принимаются документы от поступающих на Черемховский вечерний факультет.

IV. г. Братск, пос. Постоянный, ул. Гидростроителей, 87. По этому адресу принимаются документы от поступающих на заочное и вечернее обучение Братского общетехнического факультета.

V. г. Улан-Удэ, железнодорожный техникум, УКП. По этому адресу принимаются документы от поступающих на заочное обучение Улан-Удэнского УКП.

ADDRESSES OF ~~FACULTY~~ INSTITUTES AND FACULTIES:

1. IRKUTSK: ULITSA LERMONTOVA 73
2. ANGARSK: ULITSA MOSKOVSKAYA 19
3. CHEREMKHOVO: ULITSA KUYBYSHEVA 44
4. BRATSK: VILLAGE OF POSTOYANNYY ULITSA GIDROSTROITELI 87
5. ULAN UDE: RR TEKNICUM

FIRM NO. 332-670	CLASSIFICATION	PROCESSING DATE 22 OCT 1962 FBG

CODE	COUNTRY	PS	AF CHART	ACTIVITY CODES
491	USSR	1131		43

LOCATION	S/T	NAME OF INSTALLATION	PL. NO.
Irkutsk		Polytechnical Inst.	

DATE/INFO			DATE/SOURCE				PF
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-	-	-	5	SEP	62		

CONTROL NO.	SOURCE	EVAL
	CIA/FDD SUMMARY No. 3840 PHYSICS AND MATHEMATICS (20)	

149. Approximate Integration of Nonlinear Equations

"An Approximate Integration of Nonlinear Differential Equations for Oscillatory Action With One Degree of Freedom," by V. I. Voylokov, Irkutsk Polytechnic Institute; Kazan , Izvestiya Vysshikh Uchebnykh Zavedeniy. Matematika, No 4 (29), 1962, pp 19-32

OVER

In the paper, a method is indicated for obtaining approximate periodic solutions, for a period of 2π, for equations of the form

$$\ddot{x} + x + \alpha f(x, \dot{x}) = 0,$$

where α is a small parameter and $f(x, \dot{x})$ is an analytic function of variables x and $\dot{x}$. The conditions for the existence and the number of such equations, as well as the amount of deviation of the system from the condition of equilibrium, are studied. It is possible to study the stability of the solutions obtained by a method of I. G. Malkin (Nekotoryye Zadachi Teoriyil Nelineynykh Kolebaniy, [Some Problems in the Theory of Nonlinear Oscillations], Moscow, 1956). The results obtained are used for approximating the solutions of nonlinear equations expressing forced oscillations.

Irkutsk Polytechnical Institute (RSFSR Ministry of Higher and Secondary Specialized Education). Irkutsk, ul. Krasnoy Zvezdy 3.

Geological Exploration: geology and exploration of industrial mineral deposits; geophysical methods of exploration and prospecting of industrial mineral deposits; exploration equipment.

Mining: mine surveying; development of industrial minerals deposits; mining electromechanics; electric power stations; electric survicing of industrial enterprise and cities; electrical drive and automation of industrial installations.

Metallurgy: refining of industrial minerals; non-ferrous metallurgy; automationlof production processes; technology of elementary organic synthesis and of synthetic rubber; plastics engineering; technolo of petroleum;and gas; technology of electrochemi plants; technology of silicates.

Mechanics: machine construction engineering; metal-cutting lathes and tools; welding equipment and technolog construction and read machinery and equipment; machines and apparatus of chemical plants; auto transport; operation of aircraft and motors; therm power instalations in electric power stations; industrial heat and power engineering.

Construction: industrial and civil construction; production concrete add reinforced concrete items and frames for prefabricated constructions; heat and gas supply and ventilation; water supply and sewage; highways.

Evening Courses: development of industrial mineral deposits; mining electromechanics; electric drive and automation of industrial installations; electric power stations; electric servicing of industrial enterprises and cities; therm power installations of electric power stations; industrial heat and power engineering machine construction engineering; metal-cutting lathes and tools; welding equipment and technology; construction and road machinery and equipment; machinery and apparatu of chemical plants; automation of productio processes; technology of electrochemical plants; technology of silicates; technol. ogy of elementary organic synthesis and of synthetic rubber; plastics engineering; industrial and civil construction; productio of concrete and reinforced concrete items and frames for prefabricated construction; heat and gas supply and ventilation; water supply and sewage; auto transport; operation of aircraft and motors.

Evening Courses Faculties in Angarsk and Cheremkhovo

General Technical Faculty with Evening and Correspondence Course in Bratsk.

Correspondence Courses: geology and exploration industrial mineral deposits; geophysical methods of prospecting and exploration of industrial mineral deposits; exploration equipment; development of industrial mineral deposits; mining electromechanics; electric power stations; electric servicing of industria enterprises and cities; thermal power installations in electric power stations; electric drive and automation of industrial installations; industria heat and power engineering; machine construction engineering; metal-cuttin lathes and tools; welding equipment anddtechnology; construction and road machinery and equipment; machinery and apparatus of chemical plants; industrial and civil construction; production of concrete and reinforced concrete items and frames for prefabricated construction; heat and gas supply and ventilation; water supply and sewage; auto transport; highways.

USSR	OFFICIAL USE ONLY	IB IS 65 H 2754

ECONOMIC-TECHNICAL-GEOGRAPHIC ABSTRACT.

According to Prof. Mikhail Konstantinovich Kosygin, prorector for scientific work of the Irkutsk polytechnical institute, the institute has close ties with many industrial enterprises and construction projects of Eastern Siberia. It has been constently rendering assistance to a number of plants, factories, mines, construction projects, and expeditions through direct participation in various research together with engineers and technical workers of enterprises. In 1964 scientific workers of the laboratory of complex mechanization and automation of production head by senior instructor Yuriy Mikhaylovich Ilin, together with engineers and technicians of some plants, designed and introduced into production a number of installations and systems for the automatic collection and analysis of production information. The installation of the aforementioned automatic controllers has increased the level of efficiency in the supervision of shops and plants and also raised the profitableness of the goods produced by them. Scientific workers of the mining machines and mine transport faculty headed by docent Vadim Afanasyevich Politukhin have performed extensive scientific research work on raising the productivity of drilling machines at openface mines of the Cheremkhovskiy coal trust. (Continued on Card No. 65 H 2755--Irkutsk Russian 1100 GMT 10 March 1965)

The Irkutsk State University has doubled its enrollment and a new polytechnical institute for at least 7,000 students is nearing completion.

FORM 12-60 326a USE PREVIOUS EDITIONS.

FOR

TO

5 Mar 63

FIRM NO. 322 6401	CLASSIFICATION SECRET/NOFORN	PROCESSING DATE 12 AUG 1963 PPM
CODE 491 / COUNTRY USSR	PS 11 / AF CHART / ACTIVITY CODES (E)	
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DATE/INFO DA MO YR: - - -	DATE/SOURCE DA MO YR: - JUN 63	CONTROL NO. [redacted]

NEW SCIENTIFIC COMMUNITIES ARE BEING BUILT IN SIBERIA

More Expansion

The Irkutsk State University has doubled its enrollment and a new polytechnical institute for at least 7,000 students is nearing completion.

FORM 12-60 326a USE PREVIOUS EDITIONS.

5 Mar 63

3226401 11/491 0 20 JUN 1963 PPM

USSR	OFFICIAL USE ONLY	FBIS 63 H 4781

On 10 April a 3-day interoblast scientific and technical seminar devoted to modern methods of metallization and production of (metallized?) machine components completed its work in Irkutsk. (Garbych?), professor and doctor of technical sciences, and others reported. Participants laboratory of the polytechnical institute. (Irkutsk Domestic 1100 GMT 11 April 1963)

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81 MAY 19

USSR	OFFICIAL USE ONLY	FBIS 63 H 1698

Belykh, chief of construction administration No. 1 of the Vostoksibelektrosetstroy trust, states that the administration is constructing the polytechnical institute of the USSR Academy of Sciences. (Irkutsk Domestic 1200 GMT 28 January 1963)

3226401 11/491 (1) 31 MAY 1963 P.M.

USSR	OFFICIAL USE ONLY	FBIS 63 H 3625

Recently much has been said and written about individual institutes and scientific establishments which engage in parallel work and research. This practice has resulted in unnecessary expenditures and has not helped more rapidly to advance science. The first steps have already been taken to eliminate these shortcomings. On 14 March the first session of the East Siberian Council completed its work, which lasted 3 days. In this period the session discussed the coordination and planning of scientific research work at (sectors?) of higher and secondary specialized educational establishments. "Evening Irkutsk" interviewed a group of participants in the session. According to Anatoliy Andreyevich (Yegozhin?), chairman of the East Siberian Council and rector of the Irkutsk Polytechnical Institute, in the overall plan of measures for raising the role of science which were outlined at the 22d CPSU Congress, an important place belongs to the councils for the coordination and planning of scientific research work, which are the centers for the organization of efforts of the scientific community in the struggle for the successful fulfillment of scientific and technical problems which come up in the course of development of production forces in an economic region. (Continued on Card 63 H 3626)

Approved For Release 2000/08/07 : CIA-RDP96-00787R000500280003-6

Engineering Work Demands Automation

N. Ustinin
Chief Engineer, Angarsk Electromechanical Plant

Although the proverb, "We jump fast but take a long time to harness," is far older than today's advanced technology, its message speaks accurately of current problems in many production plant engineering departments. Product design is much more time consuming than production.

The following picture is all too common: During the first ten days of the month, the assembly shops are quiet while the engineering and design sections are bustling. Final designs are not put into production until the second or third week; the delay causes irregular output, irritability, and chaos. In a futile effort to avoid this problem, enterprises increase the number of engineering and design workers.

Until recently, this was the situation at the Angarsk Electromechanical Plant. The Plant produces magnetic control stations and low-voltage instruments specially designed for machine building. The products are exported to 20 foreign countries. In a comparatively short time, the production volume has increased several fold. At present, 20,000 different parts are produced at the Plant annually. Each requires precise structural development, and accurate, efficient calculation. To promptly handle the large production volume, the Plant was forced to increase engineering and technical personnel to 20% of the total number of employees. But this did not help.

Backward methods hindered success. For example, the coordinating group of the chief designer's section spent 60% of its time transferring various technical data to a standard consolidated report. Even without this task, work-load norms in the design and engineering bureau were 1.5 times higher than at other machine construction plants.

Then the Plant began to consider mechanizing engineering labor. Five years ago, the first step was taken: the chief engineer's section introduced a tabular method for the output of technical documentation on batch products. This decreased by three to four times the engineers and technicians involved in processing information. A significant effect was produced by establishing a machine accounting station at the Plant. However, it was soon concluded that today's problems cannot be solved without computers, especially in compiling specifications for batch products.

This union with electronics required a re-examination and improvement of the entire production control process. Staff members from the Computer Department of Irkutsk Polytechnic Institute, under the direction of Candidate of Technical Sciences E. I. Popov, assisted. They agreed to develop and introduce an automated production control system. Today, problems that seemed insurmountable before have been solved.

The application of computers is not limited strictly to compiling specifications. Information on receipt and expenditures of equipment is regularly dispatched from the Plant's warehouse. The computer can compare needs for equipment with that available, and issue a list of required equipment for the coming month or the next quarter.

Minsk-22 System

Much time used to be spent on compiling production schedules, on payroll accounting, etc. The automated system based on the Minsk-22 computer greatly simplifies this work.

As indicated by experience, the main difficulty lies not in installing the computer, but in the correct use of the system. Therefore, the Plant's specialists have taken special courses organized at Irkutsk Polytechnic Institute.

In the next two years, the enterprise will add new buildings and production volume will increase four times.

Translation of the article "After the First Step—the Second" ("Za pervym shagom—vtoroj"), in the newspaper *Socialist Industry (Sotsialisticheskaya industriya)*, July 7, 1970, p. 2; translated from the Russian by Irene Agnew.