

口絵写真 最盛期をむかえた首都地下鉄8号線の建設工事<カラー>
山陽新幹線(岡山-博多間)建設工事の現況
明春開業のはこびとなった『東京外環状線』

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●表紙デザイン/企画プログラム制作・東京大学生産技術研究所丸安研究室/富士山を中心とする同心円上の高低差を求めコンピューターグラフィック化したもの●

土木学会誌内容紹介……………前付1~
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 ◎圧縮を受ける長方形鋼板の終局強度・岡村宏一・吉田公憲◎構造物における衝撃現象の数値解析・吉柳史郎◎副ケーブ式連続吊橋・松本嘉司◎鉛直方向の速度釣配の大きい流況における水質分散の近似解法・住友恒◎感潮狭口水路の流速、内水域潮位および最大流速水深の解決・近藤徹郎◎移動床流れの抵抗と掃流砂量に関する基礎的研究・菅田和男・道上正規◎有限水深の波による円柱状浮体の運動・井島武士・田淵幹修・湯村やす◎公共トラックターミナルの配設および施設規模計画の合理化に関する研究・

定井善明◎金属の腐蝕におよぼす砂しき特性と水の影響・高野浩治・室達朗◎コンクリート合成構造物におけるプレキャスト部材の利用に関する基礎研究・田辺忠顕◎低サイクル荷重下における軽量コンクリートの累積損傷の検討・都築和夫・成岡昌夫◎プレキャストコンクリート連続合成まりの力学的挙動に関する研究・大浜文彦・小林和夫◎膨張セメントコンクリート舗装に関する研究・長滝重義・米山誠一◎
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の歩道における歩行者の挙動◎公団会に対する望ましい方法について◎ニュージャーシー海上空港◎
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 ◎最盛期をむかえた首都地下鉄8号線建設工事(口絵解説)◎首都高速横羽線(II期)および横浜高速1号線の部分供用開始◎自衛隊上野路・北進間一部開業◎大隅線開業◎A.I.T.で教官募集◎
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JOURNAL OF THE JAPAN SOCIETY OF CIVIL ENGINEERS

Vol. 57, No. 11, October, 1972

I. PLANNING AND CONSTRUCTION OF THE SANYO NEW LINE FROM OKAYAMA TO HAKATA

.....By *T. Saito and H. Kinbara (Page 2)*

This article describes the planning, design and construction of the Sanyo New Line having 398 km long (Okayama-Hakata), which will be operated in the spring of 1973. It is the feature of the construction that 55% of its total length consists of tunnels and that the slab railway tracks are adopted extensively for the first time. The construction of ten stations and tunnels including the New Kanmon, the Aki and the Kitakyushu tunnels over 10 km long are now going on.

II. CONSTRUCTION OF TOKYO UNDERGROUND STATION AND ITS DISASTER PREVENTION

SYSTEM.....By *A. Ejima (Page 9)*

The construction of Tokyo Underground Station with the extension of the Sobu J.N.R. Line was partly completed and opened in public in July of 1972. The outline of the underground station and the several difficulties in construction are briefly described. How to prevent disasters is one of the most important problems to construct underground stations. The way of preventing it, the facilities equipped against emergencies and its applied systems are introduced.

III. EXPRESSWAY CONSTRUCTION AND REDEVELOPMENT OF CITIES

.....By *M. Asano (Page 16)*

This report discusses the necessity of the construction method that expressways in cities are constructed to keep pace with the arrangement of their environs as the redevelopment of cities under "City Redevelopment Law". Fundamental conditions to adopt its method for the redevelopment are described. In order to investigate its adoptability in consideration of social benefits, a model region was selected and the cost of its land, its capacity and the burden for expressway were studied.

IV. EXPERIMENTAL REPORT OF PRESTRESSED CONCRETE CONTAINMENT VESSEL FOR NUCLEAR POWER PLANT

.....By *T. Oono, T. Watanabe, S. Nagano and Y. Matsui (Page 23)*

Along with the development of nuclear power plants, nuclear power furnaces become larger and larger, and pre-stressed concrete pressure vessels take the place of steel ones. The fundamental experiment by a 1/5 scale model was carried out to establish Japanese techniques. Pre-stressing, inner pressure, temperature and vibration were studied, and various valuable results were obtained. The comparison with the calculation proved its design appropriate.

V. AIR-MORTAR METHOD BY HELICOPTERS AT TSUKECHI VALLEY IN Gifu PREFECTURE

.....By *F. Oohama and H. Morimoto (Page 30)*

This article describes the air-mortar method by helicopters for small landslips which should be repaired as soon as possible. The method that the air-mortar having a number of blowholes is scattered from 10 m high by helicopters has advantages in mobility and operating efficiency. This is a report of the experiment at Tsukechi Valley in Gifu Prefecture

VI. REMOVAL WORKS OF DAMS BY SMOOTH BLASTING METHOD

.....By *T. Kuwabara, S. Minegishi, K. Suzuki and T. Kojima (Page 35)*

Recently the removal works of old structures are gradually increasing with the construction of new structures. The removal works by blasting induces damages to the surrounding structures. This is the report that a concrete dam ($h=118$ m, removal part; $l=40$ m, $V=3700$ m³) was taken away in a short time and safely by smooth blasting method without surrounding damages due to vibration.

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