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Conclusions; References; Substantiation of Boundaries and Procedure for Mining of Large Coal Brachysynclines; References; Kimberlitic Tubes Underquarry Reserves Mining Technology; 1 General Information; 2 Yakutian Kimberlitic Tubes Mining; 2.1 Modern Situation; 2.2 Mining Operations and Machines Used to Excavate Diamond Ore; 3 The Technological Problems Met While Excavating  
 4 Technology Which Is Suggested as Solution4.1 Description of Patented Technology; 5 Conclusion; References; Simulation of the Effects of Thermo Insulating Shotcrete on the Energy Consumption of Ventilation and Cooling Systems at Deep Underground Mines; 1 Introduction; 2 Preparation of the Samples and Laboratory Results; 3 Numerical Simulation; 4 Conclusions; References; Modeling Development of Deep Horizons of Open Pits; 1 Introduction; 2 Model Development; 3 Technological Solutions; 4 Deep Horizons Studies; 5 Conclusion; References  
 A New Solution Supporting the Designing Process of Mining Operations in Underground Coal Mines1 Introduction; 2 Characteristics of the Designing Process; 3 Designing Tools in the Designing Process of Underground Mines; 3.1 The Method of Modelling and Optimisation of Exploitation Works in Coal Mines; 3.2 Computer Software OPTiMine in the Polish Grid Infrastructure - PLGridPlus Project; 4 Conclusions; References; Principles of Cyclic-Flow Technology in the Development of Deep Pits; 1 Introduction; 2 One of the Largest Quarries in Kazakhstan; 3 Structure of the Kacharskyi Deposit  
 4 The Use of Cyclic-Flow Technology to Develop Kacharskyi Open PitConclusion; References; The Mining Technology of a Thick Overburden Layer Covering a Group of Flat Dipping Coal Seams; 1 Rising of Draglines Operating Parameters Expands the Scope of Direct Dumping Method Deposits Development Systems with Application Overburden Rehandling; 2 Development Schedule of Izykhsky Strip Mine; 3 Adjustment of the Maximum Output of Overburden by Direct Dumping Method; 4 Conclusions; References  
 Evaluation of Rock Mass Characteristics Using Measurement While Drilling in Boliden Minerals Aitik Copper Mine, Sweden

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Sommario/riassunto

This edited volume includes all papers presented at the 22nd International Conference on Mine Planning and Equipment Selection (MPES), Dresden, Germany, 2013. Mineral Resources are needed for almost all processes of modern life, whilst the mining industry is facing strict requirements regarding efficiency and sustainability. The research papers in this volume deal with the latest developments and research results in the fields of mining, machinery, automatization and environment protection.

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