1. Record Nr. UNINA9910451852203321 **Titolo** Engineering research and technology development on the space station [[electronic resource] /] / Committee on Use of the International Space Station for Engineering Research and Technology Development, Aeronautics and Space Engineering Board, Commission on Engineering and Technical Systems, National Research Council Washington, D.C., : National Academy Press, 1996 Pubbl/distr/stampa Descrizione fisica 1 online resource (88 p.) Disciplina 629.442 Soggetti Space environment - Research Space stations Electronic books. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di contenuto ""Engineering Research and Technology Development on the Space Station""; ""Copyright""; ""Preface""; ""Contents""; ""Executive Summary""; ""USING THE ISS FOR ERTD""; ""FOCUS ON THE CUSTOMER""; ""ENSURING BENEFITS TO THE NATION""; ""1 Introduction ""; ""REFERENCES""; ""2 Using the International Space Station for Engineering Research and Technology Development ""; ""CAPABILITIES OF THE ISS TO SUPPORT ERTD""; ""KINDS OF ERTD THAT COULD BE PERFORMED ON THE ISS""; ""POTENTIAL BENEFITS""; ""Improving Performance and Reducing Operating Costs of the ISS"" ""Improving Performance and Reducing Costs of Other Space Missions"""Improving Technologies and Gaining Knowledge for Use on Earth""; ""PRIORITIZING NASA ERTD ON THE ISS""; ""The Technology Road Map: A Guide to Priorities""; ""Experiment Selection Process""; ""Strategic Intent: Using the ISS to Drive Technology Development""; ""RECOMMENDATIONS""; ""REFERENCES""; ""3 Potential Research and Development Areas ""; ""ELECTRIC POWER""; ""Value for the Space

Station""; ""Other Uses in Space""; ""Terrestrial Applications"";

""Advantages over Testing on an Uncrewed Vehicle"""Disadvantages of

""Advantages over Ground Testing""

ISS Testing""; ""Potential Demand on ISS Power""; ""Potential Demand on ISS Crew"": ""Potential Demand on ISS Communications/Data Processing""; ""Potential Demand on ISS Logistics""; ""Cost""; ""Required Instrumentation/Facilities""; ""Required Hardware Modifications""; ""ROBOTICS""; ""Value for the Space Station""; ""Other Uses in Space""; ""Terrestrial Applications""; ""Advantages over Ground Testing""; ""Advantages over Testing on an Uncrewed Vehicle""; ""Disadvantages of ISS Testing""; ""Potential Demand on ISS Power"" ""Potential Demand on ISS Crew"""Potential Demand on ISS Communications/Data Processing""; ""Potential Demand on ISS Logistics""; ""Cost""; ""Required Instrumentation/Facilities""; ""Required Hardware Modifications""; ""PROPULSION""; ""Value for the Space Station""; ""Other Uses in Space""; ""Advantages over Ground Testing""; ""Advantages over Testing on an Uncrewed Vehicle""; ""Disadvantages of ISS Testing""; ""Potential Demand on ISS Power""; ""Potential Demand on ISS Crew""; ""Potential Demand on ISS Communications/Data Processing""; ""Potential Demand on ISS Logistics""; ""Cost"" ""Required Instrumentation/Facilities"""Required Hardware Modifications""; ""THERMAL CONTROL""; ""Value for the Space Station""; ""Other Uses in Space""; ""Terrestrial Application""; ""Advantages over Ground Testing""; ""Advantages over Testing on an Uncrewed Vehicle""; ""Disadvantages of ISS Testing""; ""Potential Demand on ISS Power""; ""Potential Demand on ISS Crew""; ""Potential Demand on ISS Communications/Data Processing""; ""Potential Demand on ISS Logistics""; ""Cost""; ""Required Instrumentation/Facilities""; ""Required Hardware Modifications""; ""LIFE SUPPORT"" ""Value for the Space Station""