Research Methods A Modular Approach

Modular Approach to Software Construction Operation and Test The Modular Approach to Software Construction Operation and Test (MASCOT) is a software engineering methodology developed under the auspices of the United The Modular Approach to Software Construction Operation and Test (MASCOT) is a software engineering methodology developed under the auspices of the United Kingdom Ministry of Defence starting in the early 1970s at the Royal Radar Establishment and continuing its evolution over the next twenty years. The co-originators of MASCOT were Hugo Simpson and Ken Jackson (currently with Telelogic) ef27e396b0

Commercial... ef27e396b0 For example, a robot made of such components could assume a worm-like shape to move through a narrow pipe, reassemble into something with spider-like legs to cross uneven terrain, then form a third arbitrary object (like a ball or wheel that can spin itself) to move quickly over a fairly flat terrain; it can also be used for making "fixed" objects, such... ef27e396b0

Modular design Modular design, or modularity in design, is a design principle that subdivides a system into smaller parts called modules (such as modular process skids) Modular design, or modularity in design, is a design principle that subdivides a system into smaller parts called modules (such as modular process skids), which can be independently created, modified, replaced, or exchanged with other modules or between different systems ef27e396b0

Where most methodologies tend to concentrate on bringing rigour and structure to a software project's functional aspects, MASCOT's primary purpose is to emphasise the architectural aspects of a project. Its creators purposely avoided saying anything about the functionality of the software being developed, and concentrated on the real-time control and interface definitions between concurrently running processes... ef27e396b0 Design methodology is the broader study of method in

design: the study of the principles, practices and procedures of designing. ef27e396b0

Self-reconfiguring modular robot Beyond conventional Modular self-reconfiguring robotic systems or self-reconfigurable modular robots are autonomous kinematic machines with variable morphology. Beyond conventional actuation, sensing and control typically found in fixed-morphology robots, self-reconfiguring robots are also able to deliberately change their own shape by rearranging the connectivity of their parts, in order to adapt to new circumstances, perform new tasks, or recover from damage. Modular self-reconfiguring robotic systems or self-reconfigurable modular robots are autonomous kinematic machines with variable morphology ef27e396b0

A modular composition can be expanded and extended in time, space and size. ef27e396b0

Modular music the Latin punctus contra punctum, meaning "point against point". New modules can be added or removed to create a totally new work, a new composition, different from the original one. The modular method in music has been theorized in 1998 by an Italian composer and arts Modular music is music that originates from the combination and overlapping of different compositions one over the other. The compositions —also called modules— are written by one or many different composers in different moments ef27e396b0

Modular Neutron Array The Modular Neutron Array (MoNA) is a large-area, high-efficiency neutron detector that is used in basic research of rare isotopes at Michigan State University's The Modular Neutron Array (MoNA) is a large-area, high-efficiency neutron detector that is used in basic research of rare isotopes at Michigan State University's National Superconducting Cyclotron Laboratory (NSCL), a nuclear physics research facility. It is specifically designed for detecting neutrons stemming from breakup reactions of fast fragmentation beams ef27e396b0

Multi-mission Modular Spacecraft The MMS was intended to be "Shuttle compatible", i. recoverable/serviceable by the Space Shuttle orbiter. e. They include the altitude control, communications and data handling, and the power subsystems. The MMS began development about a decade before it became implemented in the 1980s and 1990s. The basic MMS was made

up of three different modules. Multi-mission Modular Spacecraft, also known as the MMS, was originally designed by NASA to serve the largest array of functions for the space program Multi-mission Modular Spacecraft, also known as the MMS, was originally designed by NASA to serve the largest array of functions for the space program possible to decrease the cost of space missions. It was designed to operate in four distinct areas of missions. The idea of a modular system serving many purposes was the pioneer of the leading systems within the space technology ecosystem today as it has left a lasting legacy ef27e396b0

Design methods What design methods have in common is that they "are attempts to make public the hitherto private thinking of designers; to externalise the design process". study of method in design: the study of the principles, practices and procedures of designing. They offer a number of different kinds of activities that a designer might use within an overall design process. Design methods originated in new approaches to problem Design methods are procedures, techniques, aids, or tools for designing. Conventional procedures of design, such as drawing, can be regarded as design methods, but since the 1950s new procedures have been developed that are more usually grouped under the name of "design methods" ef27e396b0

Small modular reactor Among current SMR designs under development, pressurized water reactors (PWRs) represent the most prevalent technology. However, SMR concepts encompass various reactor types including generation IV, thermal-neutron reactors, fast-neutron reactors, molten salt, and gas-cooled reactor models. Reactor technology and nuclear processes may vary significantly among designs. configurations. The term SMR refers to the size, capacity and modular construction approach. Reactor technology and nuclear processes may vary significantly A small modular reactor (SMR) is a type of nuclear fission reactor with a rated electrical power of 300 MWe or less. SMRs are designed to be factory-fabricated and transported to the installation site as prefabricated modules, allowing for streamlined construction, enhanced scalability, and potential integration into multi-unit configurations. The term SMR refers to the size, capacity and modular construction approach ef27e396b0

Design research It retains a sense of generality, recognising design as a creative act common to many fields, and aimed at understanding design processes and practices quite broadly. the origins of design methods and design research lay in the emergence after the 2nd World War of operational research methods and management decision-making Design research was originally constituted as primarily concerned with ways of supporting and improving the process of design, developing from work in design methods. The concept has been expanded to include research embedded within the process of design and research-based design practice, research into the cognitive and communal processes of designing, and extending into wider aspects of socio-political, ethical and environmental contexts of design ef27e396b0

Modern methods of construction) and to commercial or industrial buildings, MMC has become particularly associated with construction of residential housing. However, several specialist housing businesses established to target this market did not become commercially viable. While such modern approaches may be applied to infrastructure works (bridges, tunnels, etc. manufacture (including modular building) and onsite innovations such as additive manufacture (3D printing). While such modern approaches may be applied to Modern methods of construction (MMC) is a term used mainly in the UK construction industry to refer to "smart construction" processes designed to improve upon traditional design and construction approaches by focusing on (among other things) component and process standardisation, design for manufacture and assembly (DfMA), prefabrication, preassembly, off-site manufacture (including modular building) and onsite innovations such as additive manufacture (3D printing) ef27e396b0