



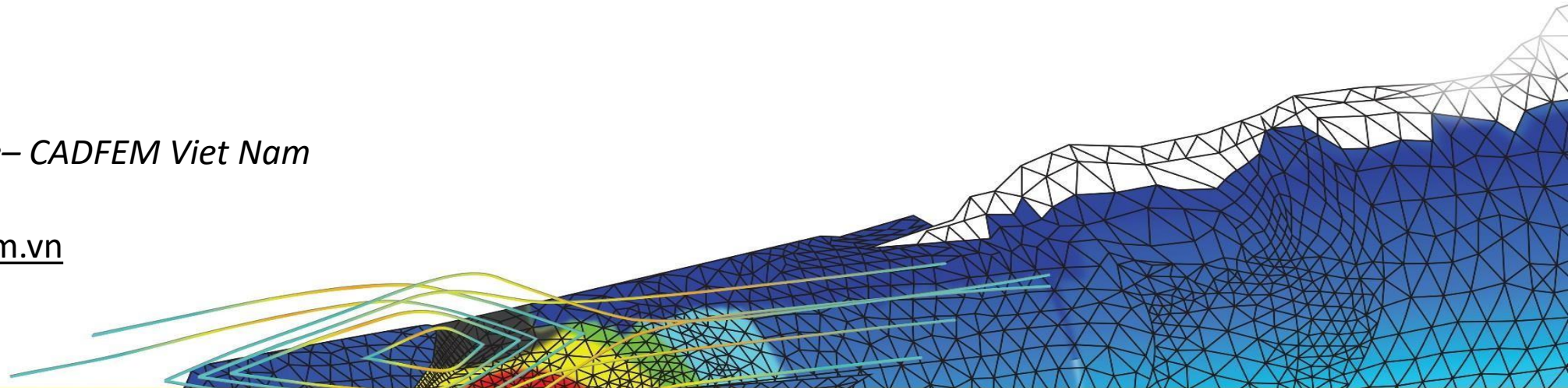
## ANSYS Portfolio

Ember Nguyen

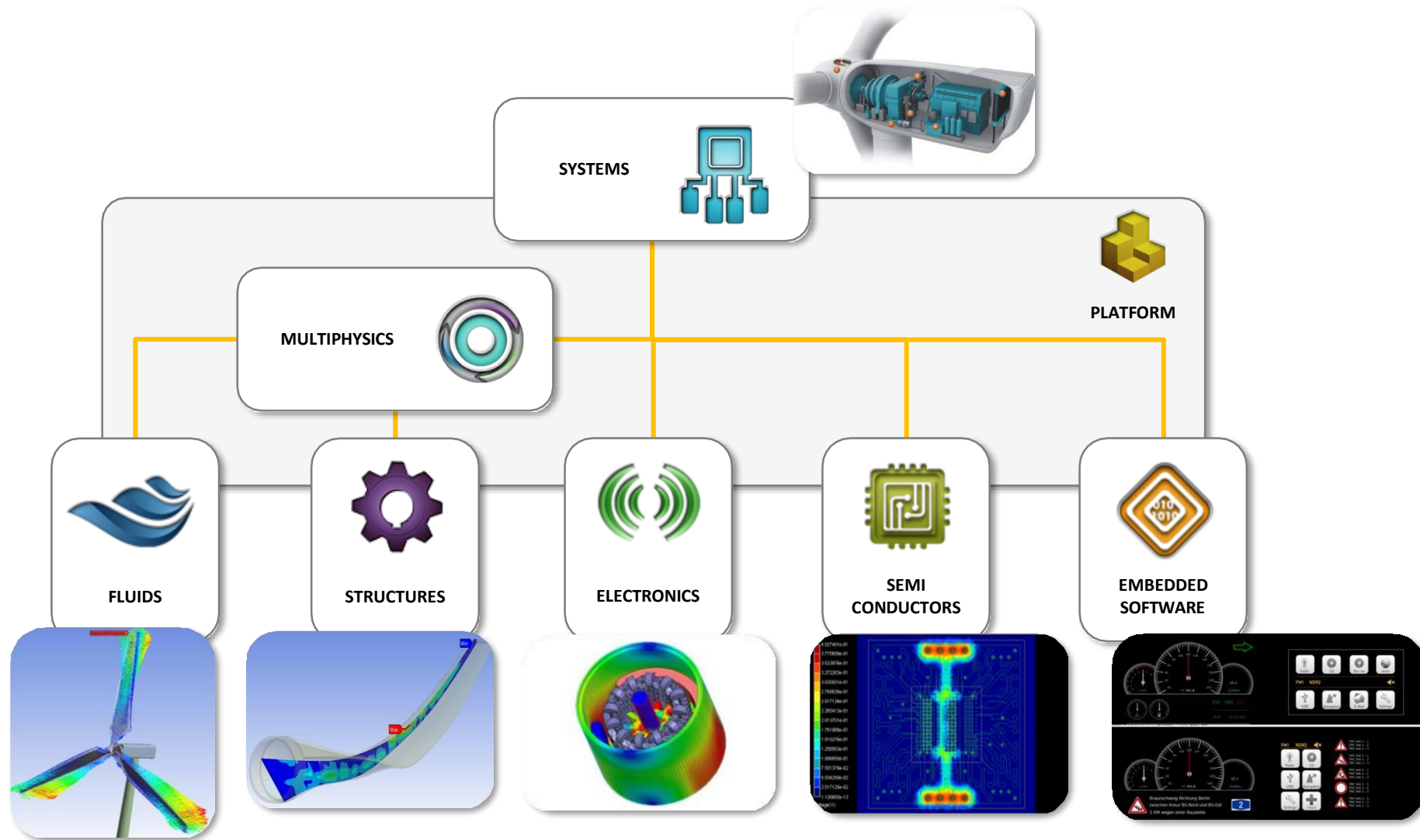
*Academic Sales Executive– CADFEM Viet Nam*

M: (+84) 33 6779 647

E: [ember.nguyen@cadfem.vn](mailto:ember.nguyen@cadfem.vn)



# ANSYS Simulation Platform

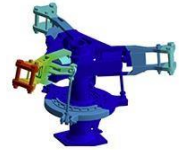


# MECHANICAL



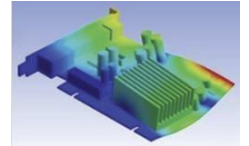
- **Strength Analysis**

- The strength of components is a key requirement in understanding a product's performance, lifecycle and possible failure modes. Mechanical loading, thermal stress, bolt tension, pressure conditions and rotational acceleration are just some of the factors that will dictate strength requirements for materials and designs. ANSYS Mechanical ensures your product's viability and safety by predicting the strength required for the loads your design will experience in service.



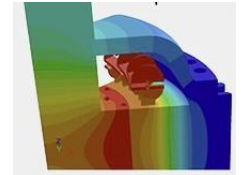
- **Vibration**

- Vibration can be an undesired side effect of poor product design or the environment in which the product is operating. It can have a big impact on durability and fatigue, leading to a shorter service life. You need to understand how your designs will respond to vibrations from phenomena such as brake squeal, earthquakes, transport, and acoustic and harmonic loads to predict the behavior of products and components. ANSYS Mechanical simulations can provide this understanding and help you to overcome your toughest vibration challenges.



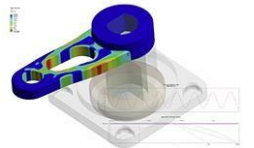
- **Thermal Analysis**

- The effects of heat and thermal management of structures is more and more critical as performance limits are pushed further by the need to have lighter, smaller and more efficient designs. Convection, radiation and conduction loads are obvious, but the need to include the effect of power losses and thermal energy from friction and external sources such as pipe flows means that analysts need to have more tools at their disposal to simulate thermal models accurately.



- **Durability**

- Building durable products is key to reducing warranty costs and increasing reliability. Being able to understand how designs will behave over time as load cycles increase helps you to avoid unexpected failures and warranty costs. Fatigue analysis is a key enabler in building this knowledge about product durability.



- **Rigid Body Dynamics**

- Mechanical systems often contain complex assemblies of interconnected parts undergoing large overall motion: suspension assemblies in ground vehicles, robotic manipulators in manufacturing processes and landing gear systems in aircraft, for example. Simulating the motion of these systems by assuming fully flexible parts and then deploying traditional finite elements methods for the solution is computationally expensive. For a faster, more efficient solution, the ANSYS Rigid Body Dynamics add-on module provides inexpensive, robust analysis of rigid multibody dynamics.



# MECHANICAL



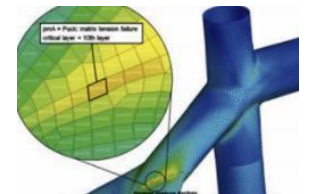
- **Hydrodynamics**

- Structures that are located offshore are subjected to environmental loading from the effects of waves, currents and wind. The design requirements for these structures can be quite different from traditional land based constructions. Simulating the loading and the effects of these on structural response is a necessary component of the design, and ANSYS provides a range of capabilities that can reproduce the loading conditions and response across a broad range of applications. The choice of solution will vary depending upon the level of detail that is required for a specific application, from simplified models for truss type structures to high fidelity simulations that include all aspects of the fluid loading environment.



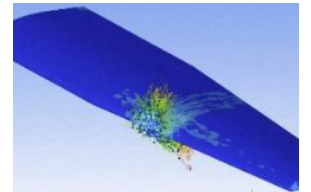
- **Composites**

- The light, strong and versatile properties of composite materials make them attractive for many types of manufacturing. Composite materials like carbon fiber (CFRP), typically used in the aerospace and automotive sectors, are being used increasingly in other applications, such as bicycle frames and musical instruments. Their composite nature, however, makes accurate simulation a challenge.



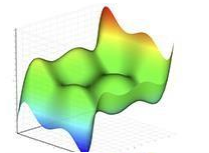
- **Impact**

- Impact between two or more bodies is modeled by the ANSYS structural family of programs, including mechanical, explicit dynamics and rigid body dynamics. These programs calculate the forces between two or more colliding bodies and the resultant deformation or damage. Explicit Dynamics generally is used for high speed interactions or complex contact. RBD is suited for impacts with no deformation, or when deformation can be ignored



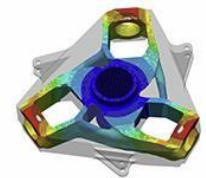
- **Parametric Optimization**

- The first step in an analysis process is simulating the performance of a base design. Then you can re-use the model to investigate design parameters, different loading, changes in environmental conditions and variations in manufacturing. ANSYS DesignXplorer enables you perform all your simulation in a single environment, ensuring the best design for any condition.

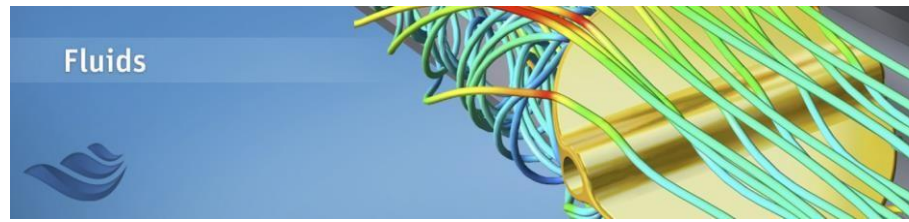


- **Topology Optimization**

- Traditional design approaches don't make the most of new manufacturing methods, like additive manufacturing, which are removing design constraints and opening up new possibilities. The optimal shape of a part is often organic and counterintuitive, so designing it requires a different approach. Topology optimization lets you specify where supports and loads are located on a volume of material and lets the software find the best shape. You can now easily perform lightweighting of structures, extract CAD shapes and quickly verify the optimized design.

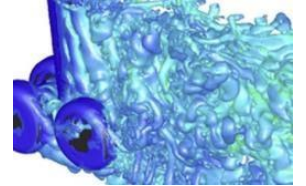


# FLUIDS



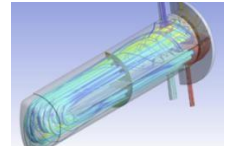
- **Single Phase, Non Reacting Flows**

- Ninety-nine percent of industrial flows are turbulent: any simulation aimed at predicting the influence of fluid flows on product performance will rely heavily on accurate and complete turbulent flow modeling. ANSYS CFD solutions provide a wide array of models for any application – from easy-to-use steady-state to advanced scale-resolving models, all supported by an expansive library of fluids properties.



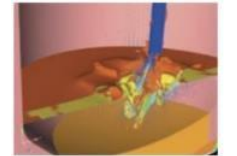
- **Heat Transfer**

- ANSYS CFD solutions can simulate heat-forced and natural convection, diffusion and radiation, as well as heat conduction in solids.



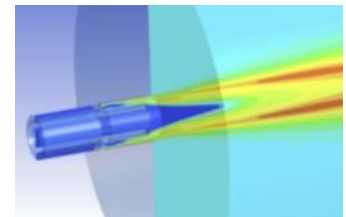
- **Free Surface Flows (Multiphase)**

- ANSYS CFD simulation technologies provide accurate and fast volume-of-fluid models that enable you to model both steady and transient phenomena involving immiscible fluids (for example air and water or air and oil) and simulate hydrodynamics, sloshing, phase changes, liquid flows and heating, wave loading (maritime applications) and more.



- **Reacting Flows and Combustion**

- ANSYS CFD simulation technologies enable engineers to optimize the performance of products that deal with reacting flows (furnaces, reformers, internal combustion engines, gas turbines, etc.). Now we can offer intuitive yet detailed fuel models with broad and deep simulation software whose hallmark is accuracy, and best-practice methodologies to help you achieve your performance and fuel efficiency goals cost effectively and without compromising time to solution. Our simulation tools enable you to reduce chemistry time by orders of magnitude, virtually eliminating the bottleneck that chemistry integration produces during the simulation process. Faster time to solution means you can spend more effort exploring design alternatives, conducting experiments, understanding where and why problems occur, and explaining observations without sacrificing accuracy.

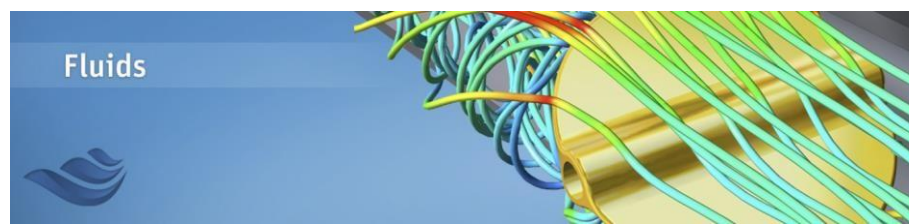


- **Shape Optimization**

- ANSYS CFD products allow you to optimize shape design using smart technologies. You can optimize your design to reduce pressure drop or drag, to minimize (or maximize) heat transfer, etc. Smart shape optimization technologies (adjoint solver, mesh morpher and optimizer, RBF-Morph) enable you to morph elements of your design, which is much faster than creating a new geometry and remeshing.



# FLUIDS



- **Dispersed Multiphase Flows**

- Whether you need to design a particle transport system, an air bubble injection system, or predict erosion rates in pipes, ANSYS CFD solutions can enable you to optimize your design by simulating complex phenomena like bubbly flows, slurries, fluidized beds, and more.

- **Turbomachinery**

- No matter the challenge with turbomachinery products (radial compressors, axial compressors, turbochargers, turbines, etc.), ANSYS turbomachinery simulation technologies enable engineers and companies to improve their design performance. Application include designing better centrifugal compressors, turbochargers, steam turbines, hydro turbines and pumps. You can also predict particle erosion.

- **Simulating aircraft icing**

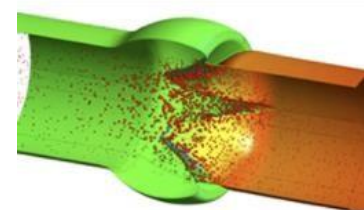
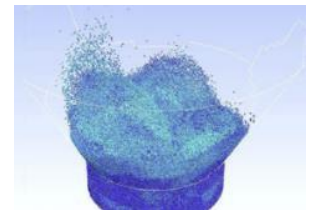
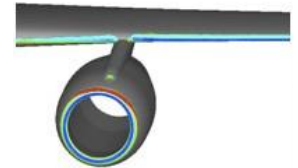
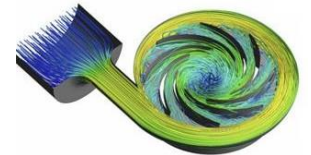
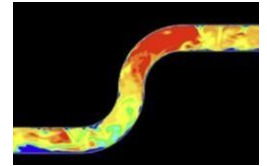
- ANSYS provides a unique combination of advanced computational fluid dynamics and icing simulation expertise in a common working environment. The solution is 3-D, so it captures real-world behavior, provides the most efficient simulation workflow available and has an extensive database of industry validation. In addition, the simulation outputs are designed to comply with the FAA's Appendices C, D and O.

- **Particle flows**

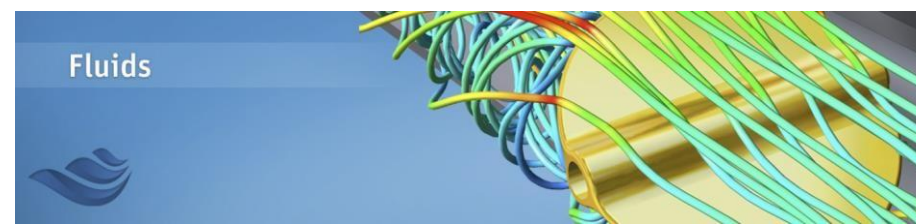
- ANSYS CFD provides a comprehensive set of capabilities for solving fluids particulate systems. The problems can range from dilute to frictional flows. Particle flow simulation has been a focus area for ANSYS over the decades. ANSYS offers a full range of validated and proven physics supported by global experts in particulate flows.

- **Fluid-Structure mechanical Interaction**

- The flow of fluids through pipe connections, flow meters, valves and distributors — and over airplane wings, turbine blades and other structures — can generate unsteady forces on the surrounding parts that cause them to move. Sometimes this movement is intentional and necessary, and sometimes it is unintentional but unavoidable. In either case, it is important to understand the impact of fluid forces on the surrounding equipment and its performance. ANSYS multiphysics solutions can help you to understand and solve product design challenges related to this fluid–structure interaction (FSI).

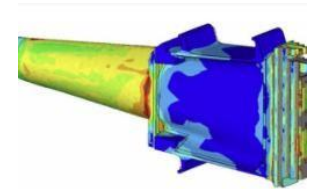


# FLUIDS



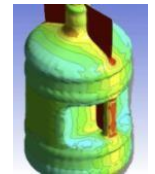
- **Fluid-Structure thermal Interaction**

- Thermal management is an important design consideration for many products. Examples of thermal management issues include the efficient removal of heat, materials deformation due to heat, and the impact of thermal cycling on durability. Failure to control heat can lead to major performance and safety problems. Fluids are often the source of the heat or the mechanism for removing it from surrounding structures. Investigating thermal effects in the laboratory is often not practical because of time and cost considerations, but ANSYS Multiphysics solutions can model these complex interactions easily, saving you time and money.

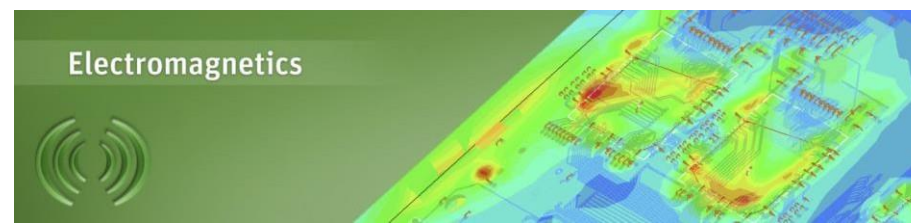


- **High Rheology material**

- ANSYS Polyflow provides advanced technology for companies in the polymer, glass, metals and cement processing industries. R&D teams use this technology extensively to design and optimize processes such as extrusion, thermoforming, blow molding, glass forming, fiber drawing and concrete shaping.



# HIGH-FREQUENCY ELECTROMAGNETICS



- **Antennas**

- You can rely on ANSYS HFSS for accurate results regarding the performance of your antennas, both as components and when integrated into an operating environment. Depending on the scale of the problem and results desired, you can select from a range of solver technologies and HPC enhancements available as add-ons.

- **Installed Antenna Performance**

- Engineers responsible for integrating antennas onto platforms are typically interested in the installed performance of the antenna. In other words, they want to know how the presence of the platform changes the performance of the antenna. Performance of the antenna is much different when installed on real-world vehicles and platforms than when installed on a big, flat ground plane in an anechoic chamber. Further, coupling between pairs of antenna can be radically different depending upon where the antennas are installed on the platform. Savant takes that costly and nearly impossible measurement based prototyping process and reduces it to minutes on a typical desktop computer.

- **Radio frequency interference**

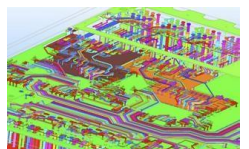
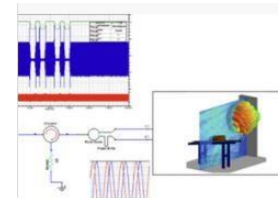
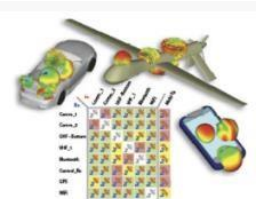
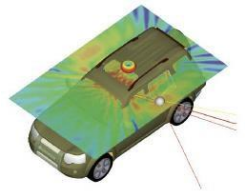
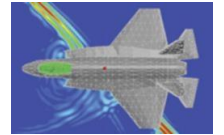
- RF cosite interference poses serious problems in situations where multiple RF systems are located in a common environment. ANSYS EMIT takes away the black magic of solving complex cosite interference problems through an intuitive workflow that identifies the root cause of problems. Whether you are considering a handheld device or a large military system, EMIT can help mitigate your most challenging cosite interference problems.

- **RF and Microwave**

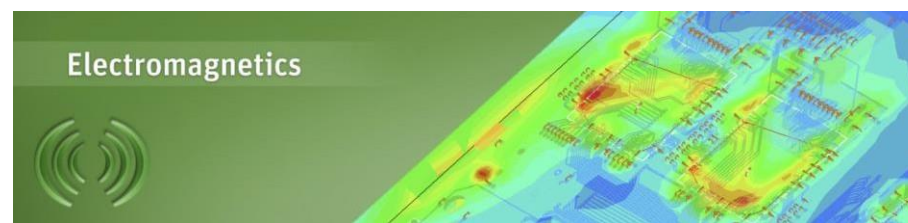
- ANSYS RF and microwave design software allows engineers to design, simulate, and validate the behavior of complex, high-performance RF, microwave, and millimeter-wave devices in next generation wireless communication and defense systems. By leveraging advanced electromagnetic-field simulators dynamically linked to powerful harmonic-balance and transient circuit simulation, ANSYS software breaks the cycle of repeated design iterations and lengthy physical prototyping. With ANSYS, engineering teams consistently achieve best-in-class design in a broad range of applications including antennas, phased arrays, passive RF/mW components, integrated multi-chip modules, advanced packaging, and RF PCBs.

- **Signal Integrity**

- ANSYS signal integrity analysis products are essential for the design of high-speed serial channels, parallel buses and complete power delivery systems found in modern high-speed electronic devices. Our integrated electromagnetics and circuit simulation products predict EMI/EMC, signal integrity and power integrity issues — enabling your design team to optimize system performance prior to build and test. Design automation features enable you to import designs from popular layout tools, perform rigorous electromagnetics extraction and then couple to full-circuit simulations. This approach enables electronics companies to achieve a competitive advantage with faster time to market, reduced costs, and improved system performance.

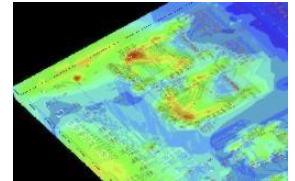


# HIGH-FREQUENCY ELECTROMAGNETICS



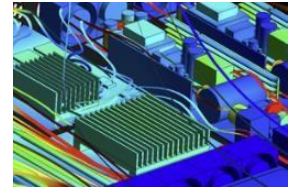
- **Power Integrity**

- For today's high-speed digital designs, it is critical that printed circuit boards (PCB) and integrated circuit (IC) packages are accurately analyzed using a reliable simulation tool like ANSYS SIwave-DC so that potential pre- and post-layout power and signal integrity problems are caught early in the design cycles. ANSYS SIwave-DC provides proper verification of power delivery networks for DC power losses, early detection of thermal hotspots, and prevention of failure during the design cycle. It's based on the highest-fidelity electromagnetic numerical analyses to solve all possible aspects involved in the high-speed digital designs of PCBs and IC packages.



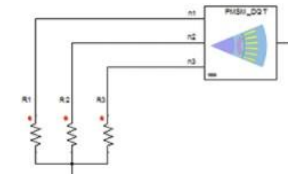
- **Electronics Cooling**

- ANSYS' industry leading computational fluid dynamics (CFD) solutions, along with chip-level thermal integrity simulation software, provide all you need to perform electronics cooling simulation and thermal analysis for chip-package, PCB and systems. You can also conduct thermomechanical stress analysis and airflow analysis to select the ideal heat sink or fan solution. Our integrated workflow enables you to conduct design trade-offs, resulting in improved reliability and performance.

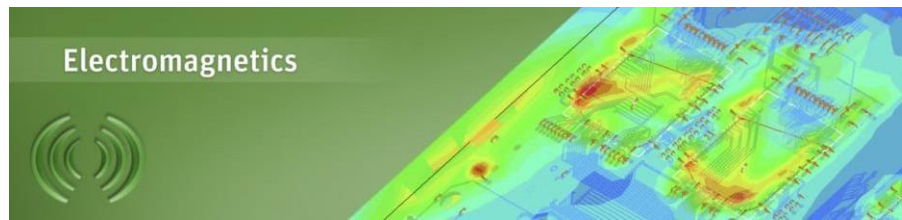


- **Power Electronics**

- As microprocessors gain speed and reliability, more electronic controls and electrical content are being applied to traditional mechanical and hydraulic processes. Power electronic and mechatronic systems are increasing operational efficiency and delivering advanced automation features through a blend of mechanical, electronics and embedded software components. Aircraft, automobiles, defense systems, machine tools, home appliances, toys and many other products are based on power electronic and mechatronic systems.

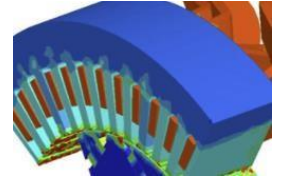


# LOW-FREQUENCY ELECTROMAGNETICS



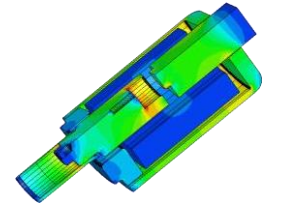
- **Electric Motors**

- Engineers who design electric machines need simulation tools that can be employed for quick, accurate product development. By employing finite element methods early in the design process, they can accelerate development and achieve higher machine efficiencies using less material, which reduces costs. Furthermore, to achieve an optimal motor design demands a full multiphysics analysis workflow. Assuming that the machine will remain in the intended operating range can lead to poor design choices, redesign late in the development cycle or product failure. ANSYS' electric machine design flow provides a complete virtual prototyping laboratory for machine design and development.



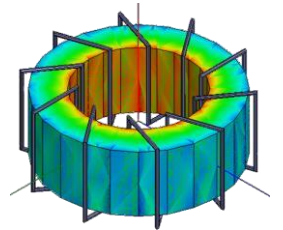
- **Actuators**

- Engineers usually have to adhere to a specific set of customer requirements: How do I meet the force vs stroke requirements for a device? How do I maintain the size requirements while still meeting the force requirements? How do I reduce closing time? How do I include the design in a complete system simulation? Using ANSYS' tools allows engineers to design and optimize for these requirements.



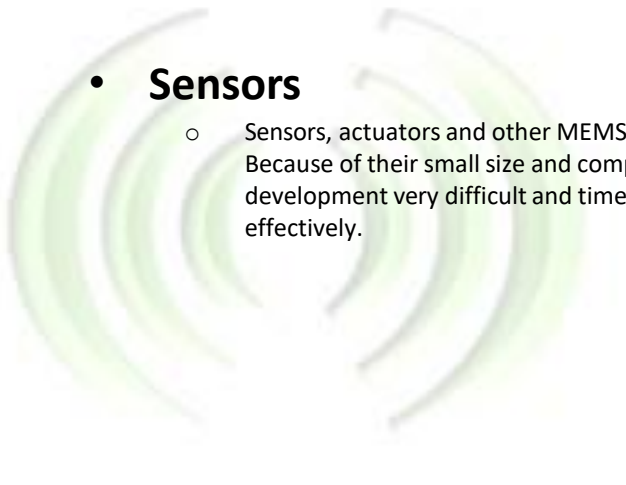
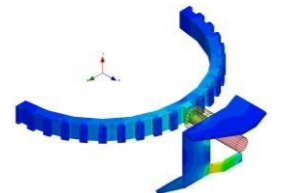
- **Transformers**

- A transformer is by nature a Multiphysics component. Only ANSYS makes this easily possible by the usage of ANSYS Workbench. By using coupled simulation, transformer companies can optimize the design for both the electrical efficiency and thermal, acoustic aspects.



- **Sensors**

- Sensors, actuators and other MEMS devices are the lifeblood of the IoT. These tiny devices gather the information and initiate the actions that the IoT depends on. Because of their small size and complex functions, designing them involves many different physics, and widely varied geometries and materials, which makes their development very difficult and time-consuming using build-and-test methods. ANSYS engineering simulation solutions can help you design your sensors more effectively.



# SYSTEMS



- **Virtual Systems Prototyping**

- Today's product development process is complex. With virtual systems prototyping, developers can assemble and simulate electrical, electronic, thermo-fluid, mechanical and embedded software components. The methodology offers 3-D precision when needed as well as reduced-order modeling for verifying multidomain system performance interaction.



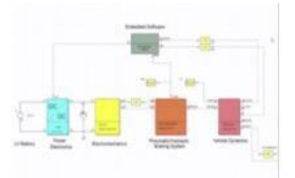
- **Electric Drives**

- The electric drive system is a key application in power electronics. Optimizing such complex mechatronic system requires in-depth analysis, expertise and rigorous methodology. This can be realized in several ways, optimizing each component of the system separately. But using optimal components does not guarantee optimal behavior of the whole drive. This calls for a system simulation approach integrating each individual part of the drive system into a common simulation platform.

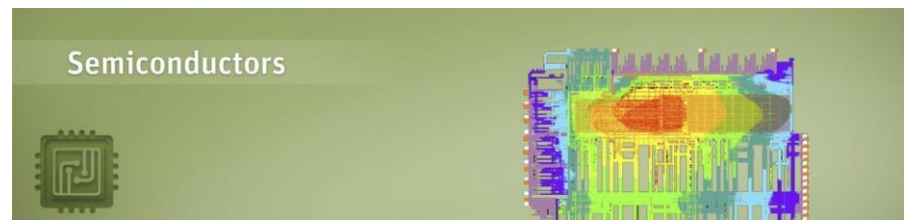


- **Power Electronics Systems**

- ANSYS Simplorer is a complete modeling and simulation environment for testing and analyzing power electronic systems. Simplorer is used throughout the development process to select and size components, analyze power losses, optimize system efficiency, mitigate EMC problems, understand thermal performance, integrate controls, and inject and assess faults.

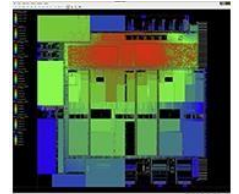


# SEMICONDUCTORS



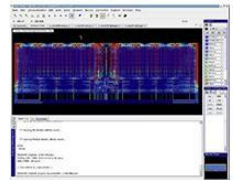
- **SOC Power Integrity**

- Supplying proper voltage to all devices on an System on Chip (SoC) is critical to it's operational reliability. Supply voltage noise is inherent to all ICs due to the variations in operating conditions and weaknesses in the design of the power grid. A simulation driven analysis platform such as ANSYS RedHawk can provide the ability to analyze the supply voltage variations under various load conditions with sign-off accuracy and help designers reduce the overall noise.



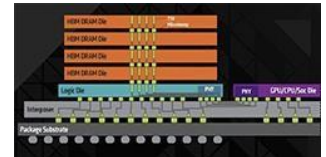
- **IP Power and Reliability**

- Semiconductor IPs are critical parts of any system on chip (SoC) design. These IPs need to be analysed for their operational reliability, both by themselves and within the context of the SoC. A robust platform that can both analyse these IPs for reliability and generate an accurate model for SoC level verification is important. ANSYS Totem is a comprehensive transistor level power noise and reliability analysis platform for analog/mixed signal designs.



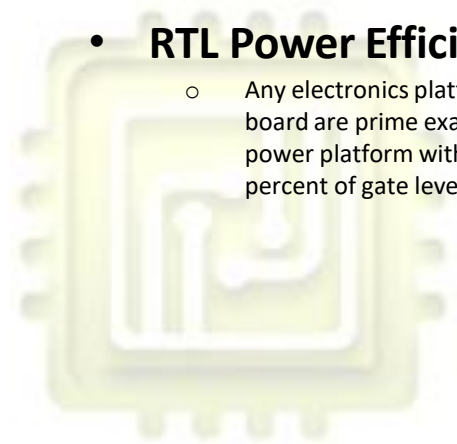
- **3D and 2.5D IC Analysis**

- Semiconductor 3-D ICs offer the advantages of higher performance, lower power and smaller form factor. The integration of multiple ICs on the same package or the stacking of multiple ICs comes with several verification challenges. The ANSYS RedHawk-3DIC platform gives you the ability to simulate multiple ICs modules that are integrated in a 2.5-D or 3-D fashion. The RedHawk-3DIC platform can model interposers, through silicon vias (TSVs) and microbumps, including the different ICs. In addition to the IC components, an accurate model of the package can also be extracted and modeled during the power and signal integrity simulations.

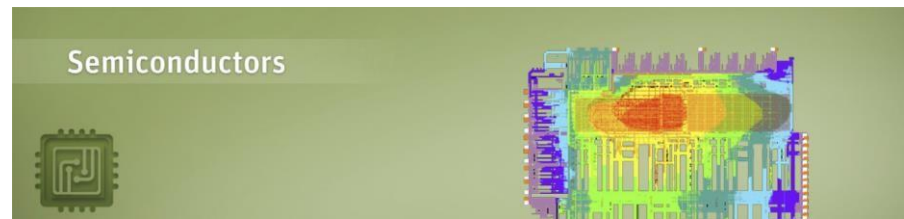


- **RTL Power Efficiency**

- Any electronics platform that is powered by a battery needs to be efficient in consuming power. Mobile computing platforms that integrate several ICs on the same board are prime examples of situations in which all the ICs need to consume power in an efficient manner. ANSYS PowerArtist is a comprehensive RTL design-for-power platform with the ability to analyze, debug and reduce power for digital ICs. ANSYS PowerArtist can achieve predictable RTL power accuracy within 10 to 15 percent of gate level power analysis tools.

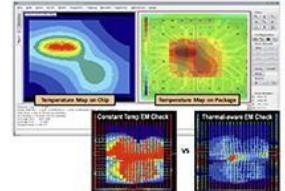


# SEMICONDUCTORS



- **SOC Reliability**

- Large system on chips (SoCs) using advanced FinFET technologies offer the benefits of lower leakage, higher performance and density in smaller area. The challenge designers face are higher temperatures from higher current densities, self-heat, electromigration (EM) and electro-static discharge (ESD) issues that have to be identified and managed. An increase in temperature by 25 degrees Celsius typically leads to 3X to 5X degradation of the expected lifetime of devices and metal layers. Accurate thermal analysis is key.



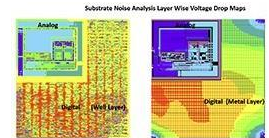
- **Chip Package System Co-Design**

- Power integrity and signal integrity simulation for any IC should be performed with the proper noise model of the IC, along with the channel model of the package and board.



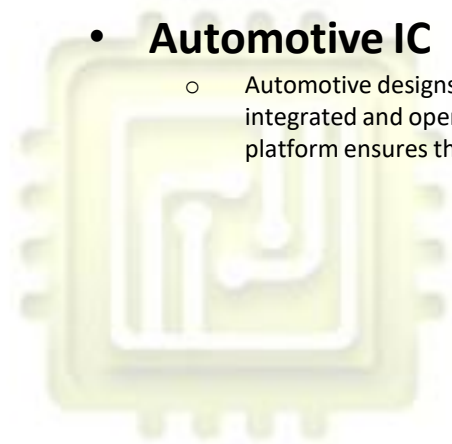
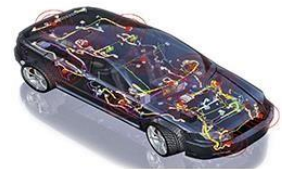
- **Substrate Noise**

- System on chip (SoC) semiconductor ICs consist of a high speed digital core, analog circuits, sensitive radio frequency (RF) modules and I/O interfaces. When these modules are integrated onto the same IC, they share the silicon substrate, and noise injected can propagate from one module to another. The ANSYS Canyon Substrate Extension (CSE) platform can model noise injection from the digital cores, and the propagation of noise through the silicon substrate, including the isolation structures.



- **Automotive IC**

- Automotive designs increasingly incorporate multitudes of electronics systems to provide safety, comfort, and better performance. As more of these systems are integrated and operate simultaneously, poor system design can increase temperature, electrical noise, and create magnetic interference. The ANSYS software platform ensures these systems are validated for system integrity.



# EMBEDDED SOFTWARE

Embedded Software



CADFE<sup>®</sup>

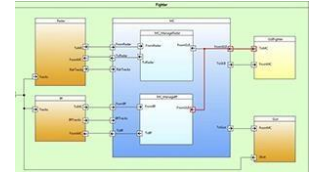
- **Model-Based Systems Engineering**

- To better manage the complexities of today's product architectures and truly understand and manage the countless dependencies across sub-systems, traditional systems engineering practices have evolved to model-based systems engineering (MBSE). The fundamental difference is that the authoritative system definition no longer resides in a set of static text-based design documents, but rather in a living model. This model provides a thorough understanding of the dependencies and interfaces between the various subsystems. In addition to representing large amounts of information in more sophisticated, interrelated ways, models are easily shared and communicated across teams, more amenable to change management, and support automated and comprehensive traceability from stakeholder requirements to implementation.



- **Embedded Control Software Development**

- ANSYS SCADE solutions provide a model-based embedded software development and simulation environment with a built-in automatic code generator. The embedded software model is exactly implemented by the generated code without any ambiguity. With ANSYS SCADE solutions, you can be sure that the behavior observed in the simulation will match the behavior in the target embedded software platform.



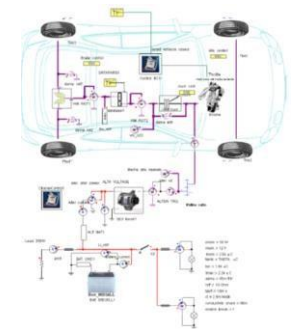
- **Man-Machine Interface Software**

- Man-machine Interface software is used widely across all industries, from cockpit display on aircraft, to control room displays in nuclear facilities to infotainment systems in the automobile that you are driving. To meet tighter standards for software certification, embedded software engineers will need to leverage software simulation tools and certified code generators.



- **Virtual Systems Prototyping**

- Today's product development process is complex. With virtual systems prototyping, developers can assemble and simulate electrical, electronic, thermo-fluid, mechanical and embedded software components. The methodology offers 3-D precision when needed as well as reduced-order modeling for verifying multidomain system performance interaction.



# PLATFORM

Connecting simulation with the business  
of engineering



CADFE<sup>®</sup>

- **Increase Engineering Collaboration**

- As companies increase their use of simulation, engineering teams need to handle the complexity of a multitude of tools and integrate their data. Failing to properly integrate systems is inefficient and a leading source of error and rework. Leading companies are using the ANSYS simulation platform to standardize their engineering simulations and to connect simulation with various business process tools, including PLM and CAD software. This facilitates simulation data and process management across the enterprise, improving the development, manufacturing and operation of smart and connected products.



- **Protect your IP**

- Simulation uses and generates large amounts of data. Storing, managing and protecting this data is a challenge faced by many that is usually addressed by adopting ad hoc solutions that often result in data loss, process inefficiencies and, above all, risk of exposing IP. The ANSYS simulation platform provides a secure solution to archive data, enable easy data search and retrieval and set permissions for authorized access, protecting one of the most valuable assets of your enterprise.



- **Create a Scalable Simulation Environment**

- Engineering simulations often require large computing resources for increased throughput and faster decision making. The ANSYS simulation platform delivers high-performance computing (HPC) deployed on in-house data centers or on public clouds for maximum utilization of simulation and IT resources. It supports simulation use across the entire organization, transcending departmental and geographic boundaries, and resulting in increased team productivity.



- **Build and Share Apps**

- ANSYS offers simulation apps that multiply the effectiveness of general purpose simulation tools. Engineering simulation apps enhance your user experience while increasing speed and scalability of simulation-led product creation processes. You can build or download apps for deployment across your enterprise, and then share these apps with partners and suppliers to drive consistency and efficiency of engineering processes across their enterprises.



- **Customize Workflows**

- Many simulation workflows involve repetitive processes. The ANSYS simulation platform lets you automate such workflows to increase your productivity. Some simulation applications are complex, comprising specialized workflows. The open, flexible platform enables you to encapsulate these workflows into templates. This facilitates wider adoption of simulation by non-experts, reducing time-to-market and product development costs.



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# 3D DESIGN



- **3D Modeling**

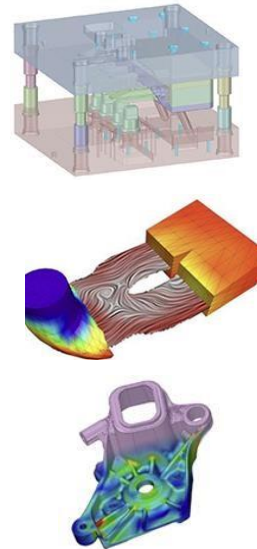
- Built on direct modeling technology, ANSYS SpaceClaim makes creating, repairing or editing geometry easy again, instead of a chore. Whether you are involved in concept modeling, reverse engineering scanned data or preparing a model for manufacturing or simulation, SpaceClaim's tools are designed to remove geometry bottlenecks and accelerate the design process.

- **Simulation for Design Engineers**

- ANSYS AIM seamlessly integrates design and simulation for all engineers, helping them to explore ideas and concepts in greater depth. AIM provides a single platform for simulation-driven product development. With guided workflows to promote best practices, you can take advantage of best-in-class ANSYS solver technology to the fullest. Easy to learn and use, it offers unmatched versatility, speed and precision to optimize designs and take them to the next level. Whether performing thermal, electromagnetic, structural, fluid or various multiphysics combinations, AIM eliminates the need for any other simulation software for designers.

- **Instant Simulation**

- Currently available as a technology preview, ANSYS Discovery Live is an environment providing instantaneous simulation, tightly coupled with direct geometry modeling, to enable interactive design exploration. Supporting common fluids, structural, and thermal simulation applications, it allows engineers to experiment with design ideas and see instant feedback from their changes.



# About Ansys and CADFEM



**#1** IN  
**ENGINEERING  
 SIMULATION  
 SOFTWARE**

*The Industry Leader*

*Simulation is  
 Our Core Business*

*Uniquely Positioned  
 for Growth*

**GOLD  
STANDARD  
IN EVERY MARKET**



**Comprehensive  
Simulation Suite**



**Simulation  
Accuracy**



**Expert Engineering  
Partner**



**Open  
Ecosystem**



# CADFEM Group – Driving force of the simulation since 1985

**20+**

COMPANIES

**450+**

EMPLOYEES

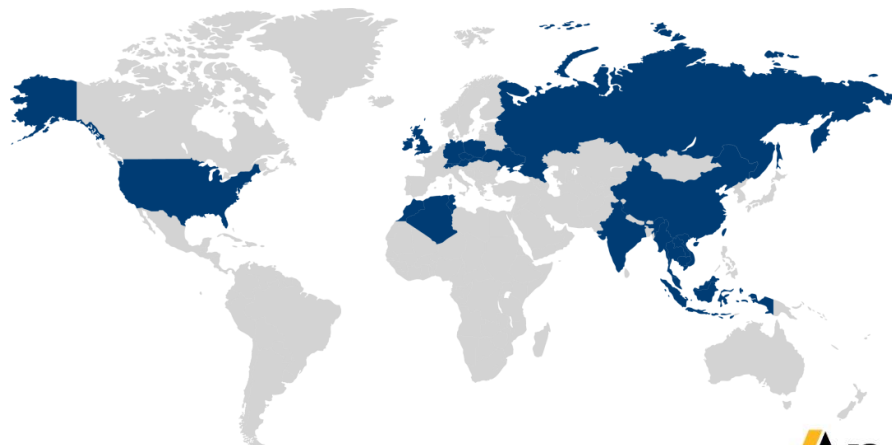
**17**

COUNTRIES



## Global Presence

- ▶ CADFEM, Germany
- ▶ CADFEM (Suisse), Switzerland
- ▶ CADFEM (Austria), Austria
- ▶ CADFEM UK CAE, UK
- ▶ CADFEM Ireland, Ireland
- ▶ MESco, Poland
- ▶ SVS FEM, Czech Republic, Slovakia
- ▶ CADFEM CIS, Russia
- ▶ CADFEM Ukraine, Ukraine
- ▶ CADFEM Afrique du Nord, Africa
- ▶ CADFEM Americas, USA
- ▶ Ozen Engineering, USA
- ▶ CADFEM India, India
- ▶ Pera-CADFEM Consulting, China
- ▶ CADFEM SEA, Southeast Asia: Vietnam, Singapore, Malaysia, Thailand, Indonesia



**3000+**

CUSTOMERS

**250+**

ANSYS  
SPECIALISTS

**98%**

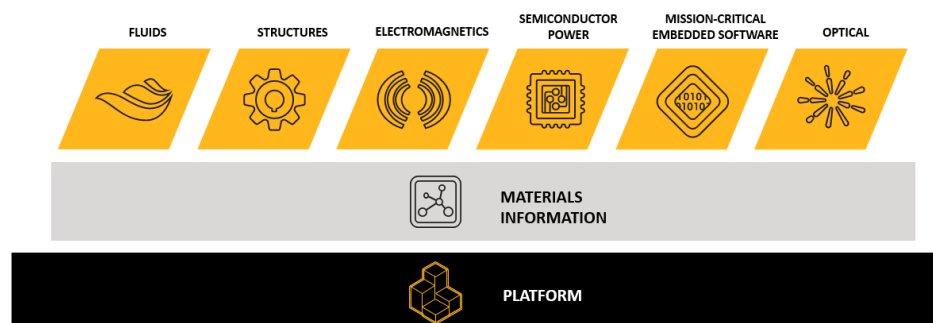
CUSTOMER  
SATISFACTION

**Ansys** / CERTIFIED  
ELITE CHANNEL  
PARTNER



**Ansys**

Best-of-breed simulation across all major physics



**CADFEM®**

- 37+ Years Expertise in CAE Industry
- ANSYS Elite Channel Partner
- More than 250 ANSYS specialists
- Network of engineering firms with complementary abilities and expertise
- One Stop Solution for All Simulation Requirements

**ANSYS®**



Ember Nguyen

*Academic Sales Executive – CADFEM Viet Nam*

M: (+84) 33 6779 647

E: [ember.nguyen@cadfem.vn](mailto:ember.nguyen@cadfem.vn)