SSD ING-IND13

Journal Publications 2012-16 (80)

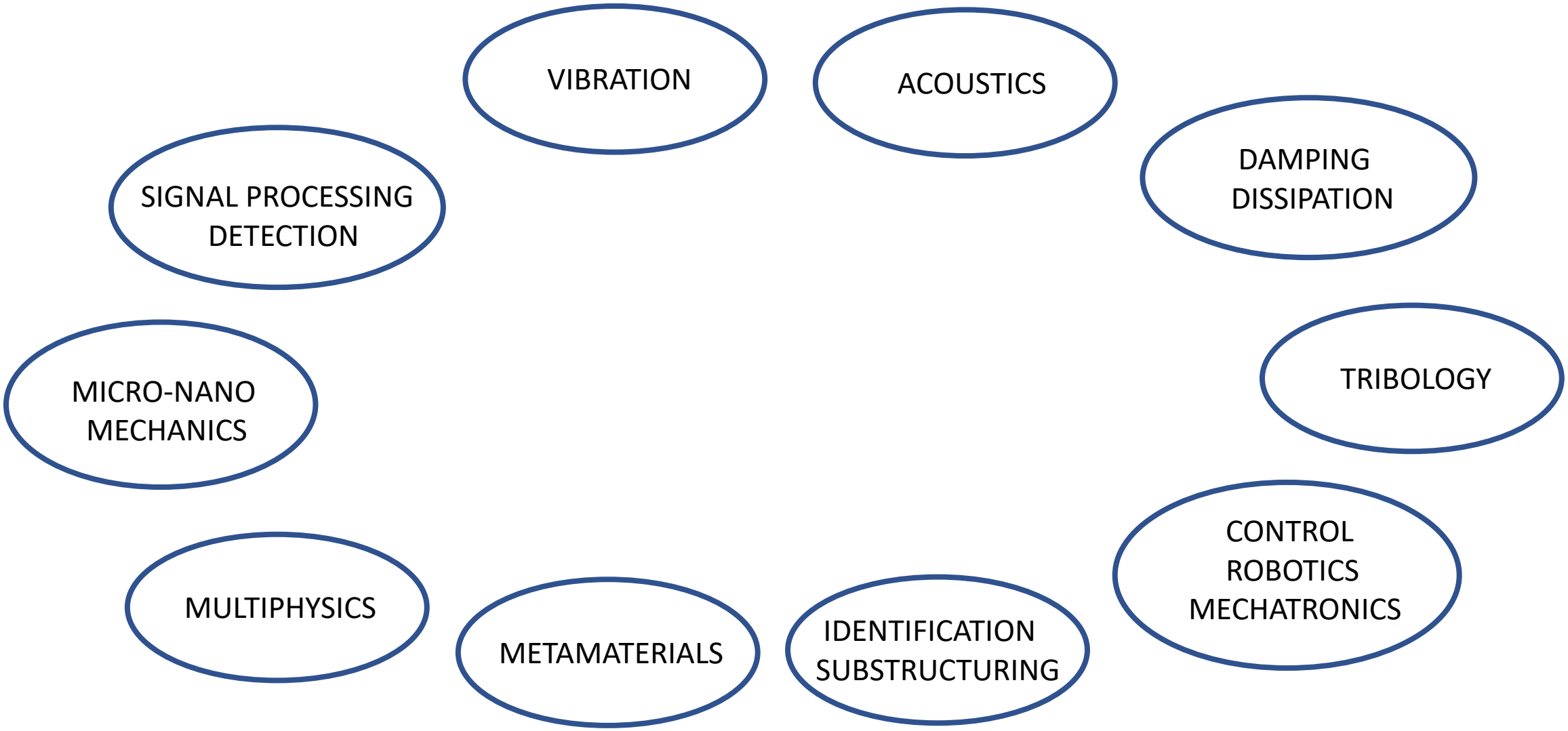
JOURNALS (80)

- Mechanical Systems And Signal Processing (14)
- Mathematics And Mechanics Of Solids (6)
- International Journal Of Engineering Science (5)
- Continuum Mechanics And Thermodynamics (5)
- Tribology International (4)
- Journal Of Sound And Vibration (4)
- Mechanism And Machine Theory (3)
- Meccanica (3)
- International Journal Of Mechanics And Control (3)
- International Journal Of Food Microbiology (3)
- ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik (2)
- Physical Review E (2)
- Journal Of Mechanisms And Robotics (2)
- Journal Of Mechanical Design Transactions Of The ASME (2)
- Agricultural Engineering International Cigr Journal (2)
- Wear (1)
- Tribology Letters (1)
- Shock And Vibration (1)
- Proceedings Of The Royal Society A Mathematical Physical And Engineering Sciences (1)
- Proceedings Of The Estonian Academy Of Sciences (1)
- Micromachines (1)
- Mechanics Research Communications (1)
- Journal Of Tribology (1)
- Journal Of Engineering Mechanics (1)
- Journal Of Composite Materials (1)
- International Journal Of Solids And Structures (1)
- International Journal Of Non Linear Mechanics (1)
- International Journal Of Nanomechanics Science And Technology (1)
- International Journal For Numerical Methods In Engineering (1)
- International Journal For Numerical And Analytical Methods In Geomechanics 1
- Comptes Rendus Mecanique (1)
- Cement And Concrete Research (1)
- Biomechanics And Modeling In Mechanobiology (1)
- Archive Of Applied Mechanics (1)
- Archive For Rational Mechanics And Analysis (1)

COMPOSIZIONE DEL GRUPPO (21)

- - 2 PROFESSORI ORDINARI
- - 3 PROFESSORI ASSOCIATI
- - 1 RICERCATORE CONFERMATO
- - 9 ASSEGNISTI RICERCA
- - 6 DOTTORANDI

Linee Tematiche



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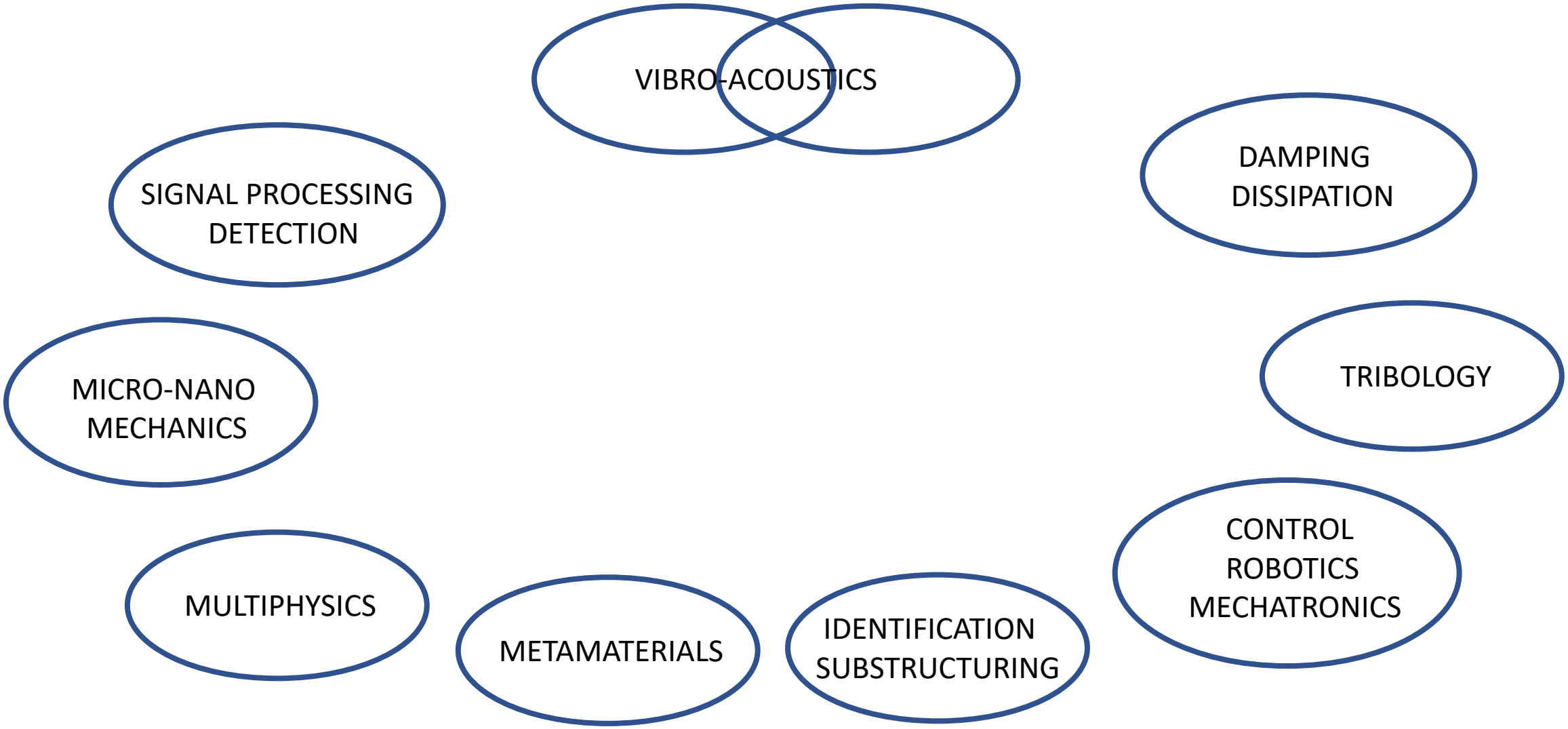

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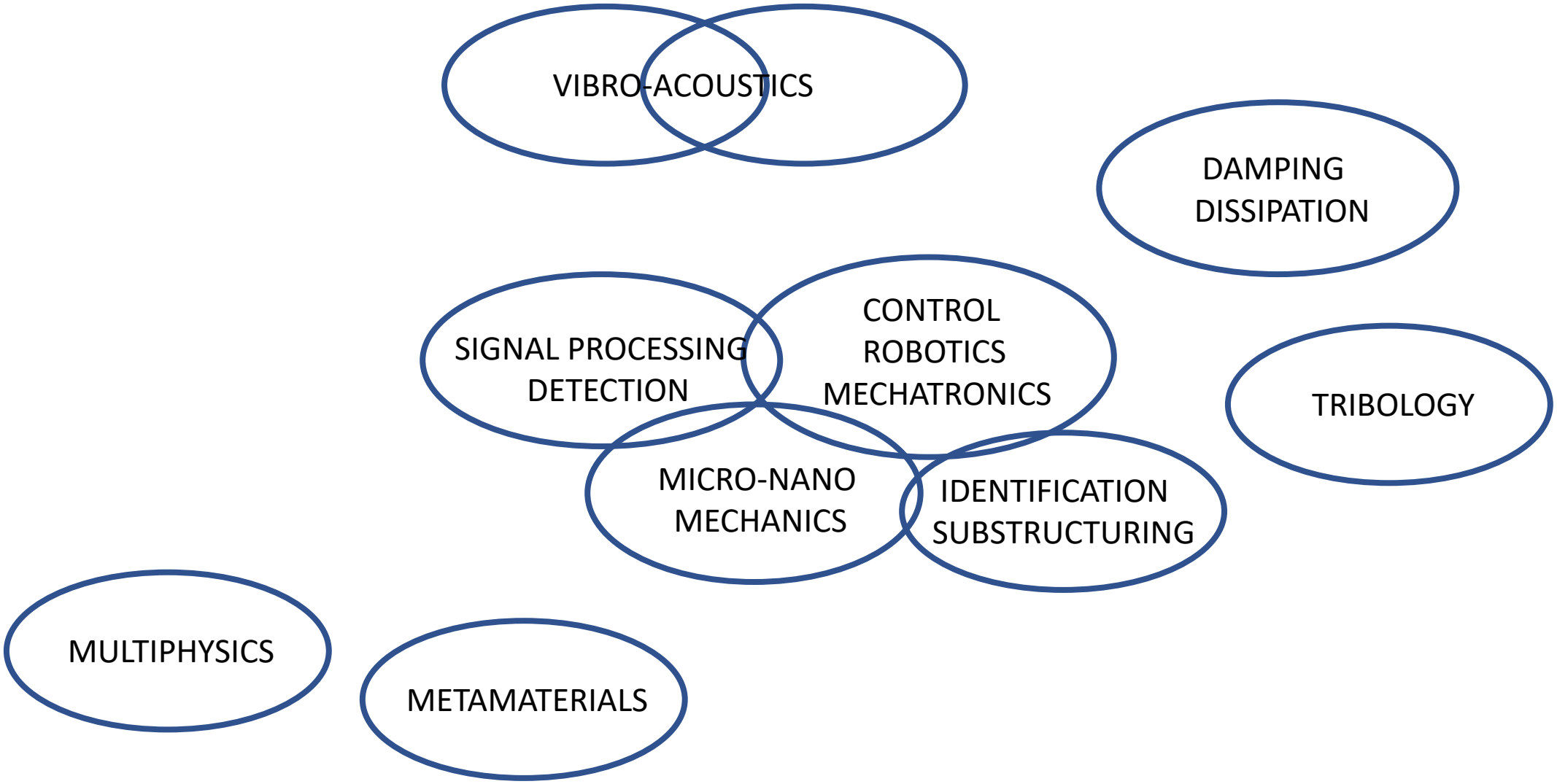

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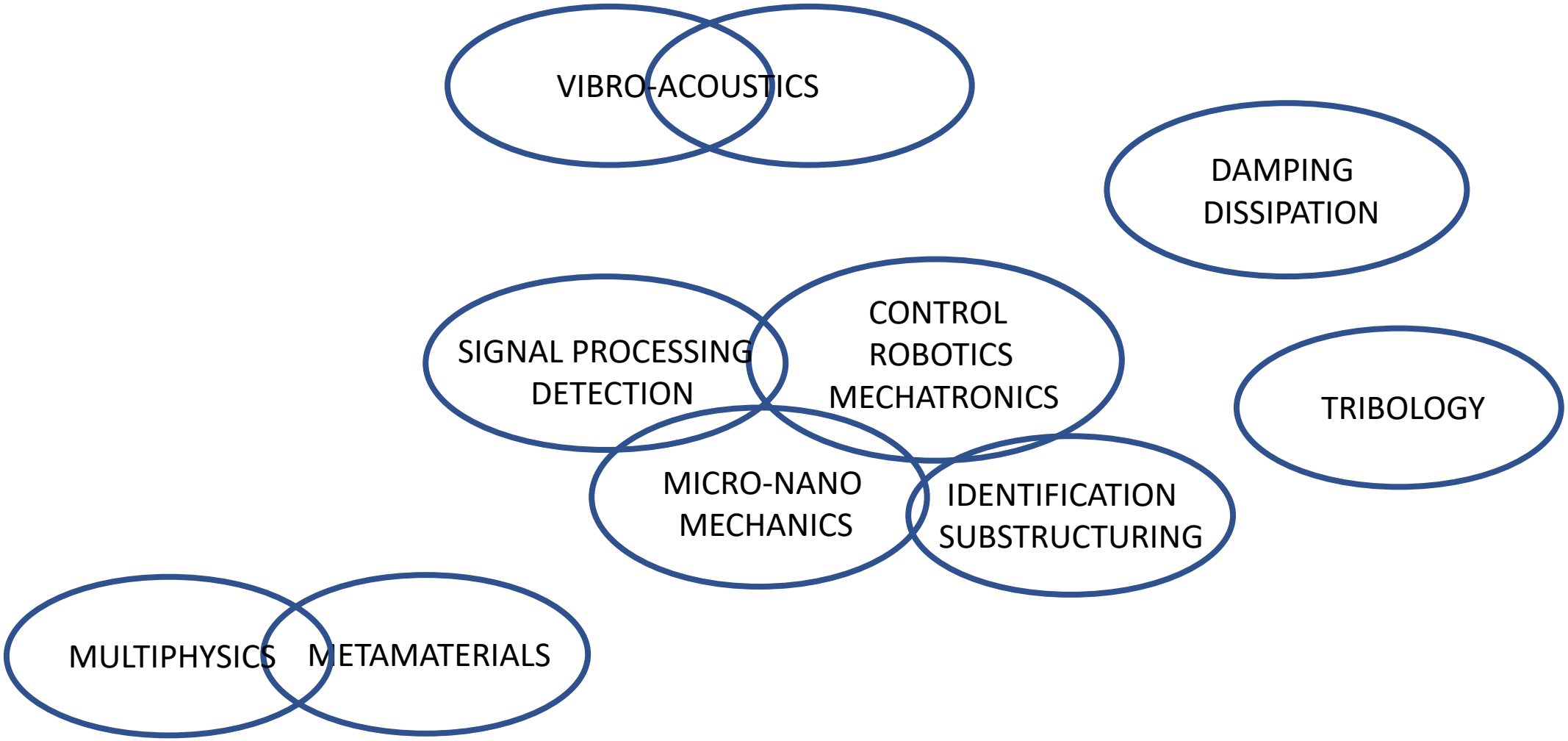

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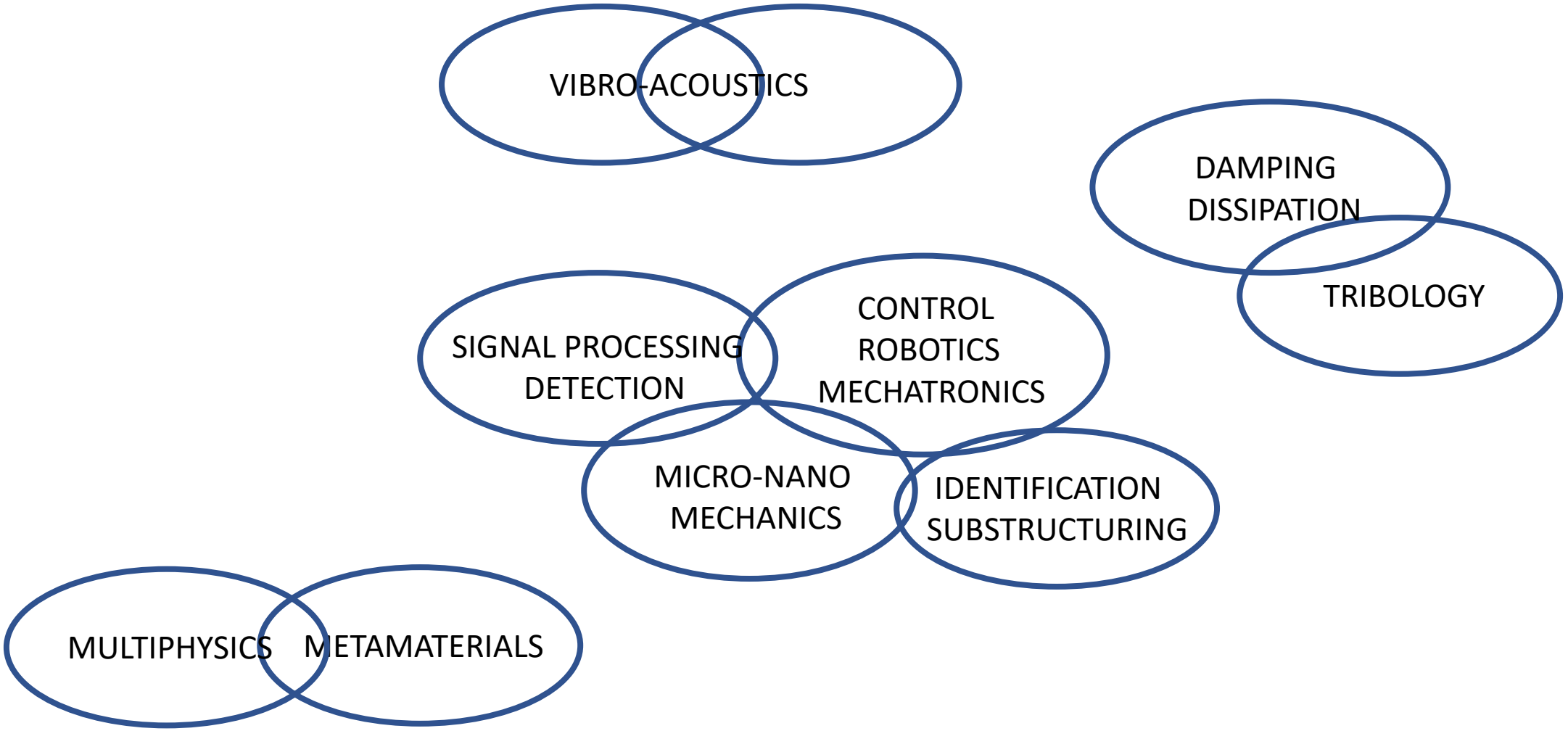

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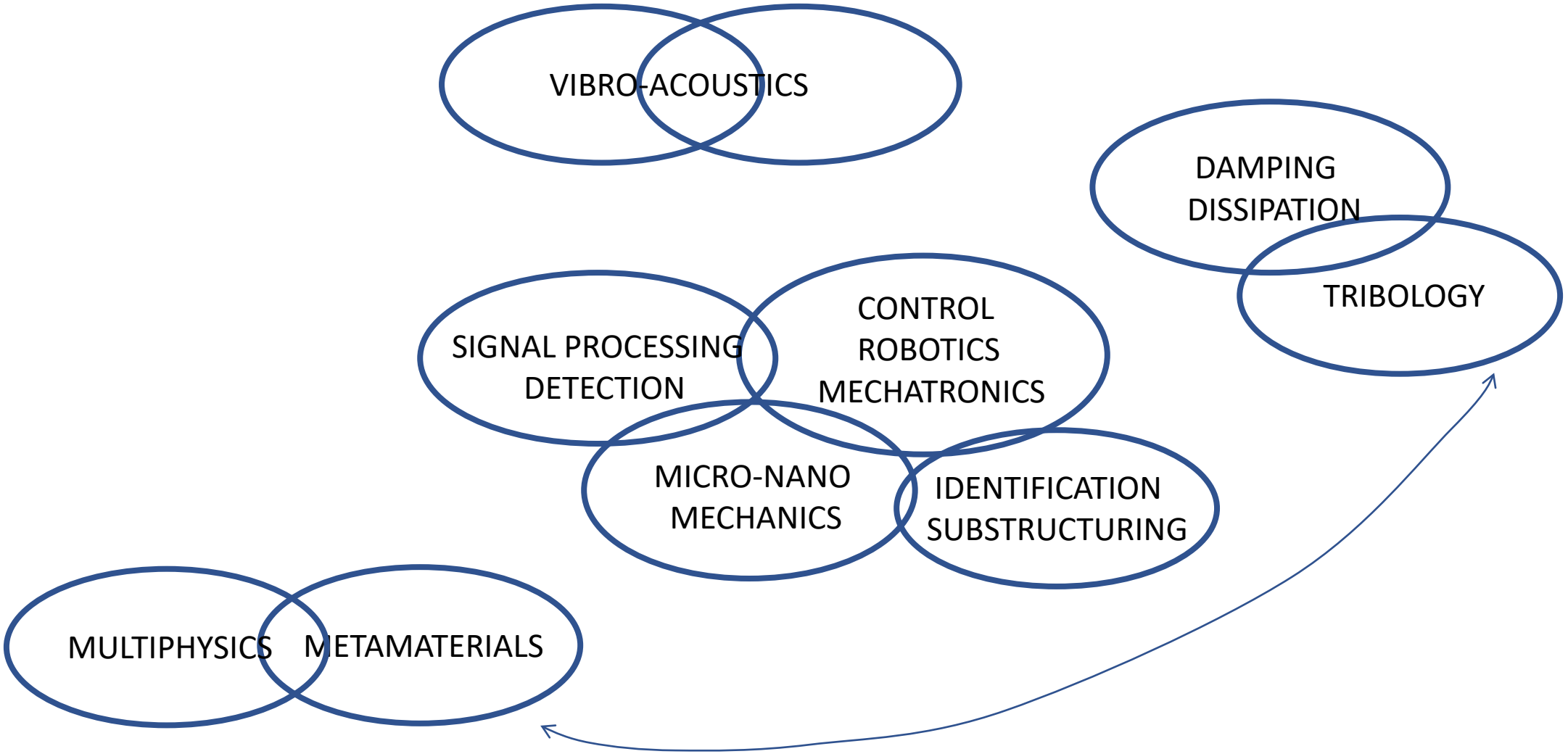

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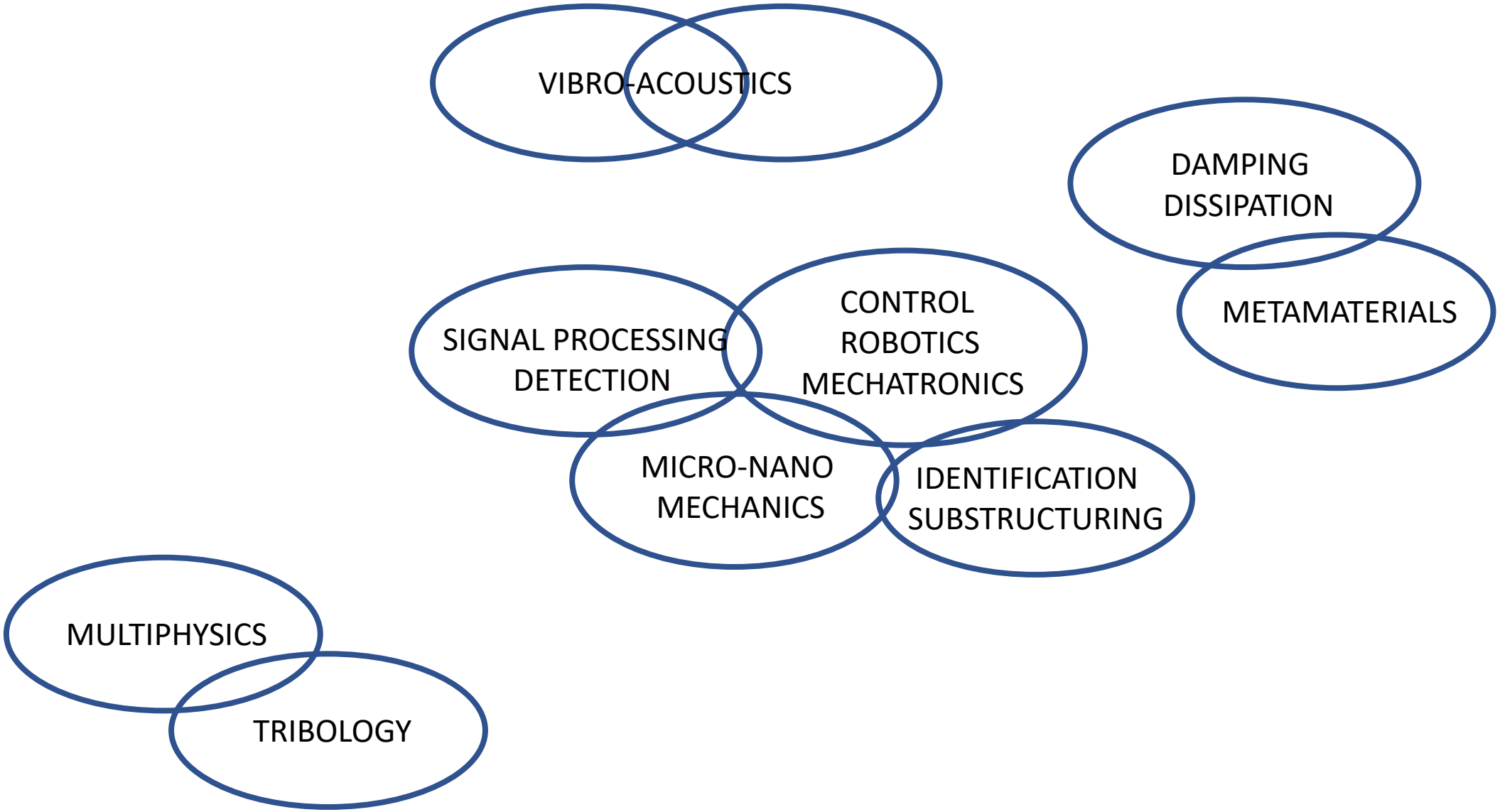
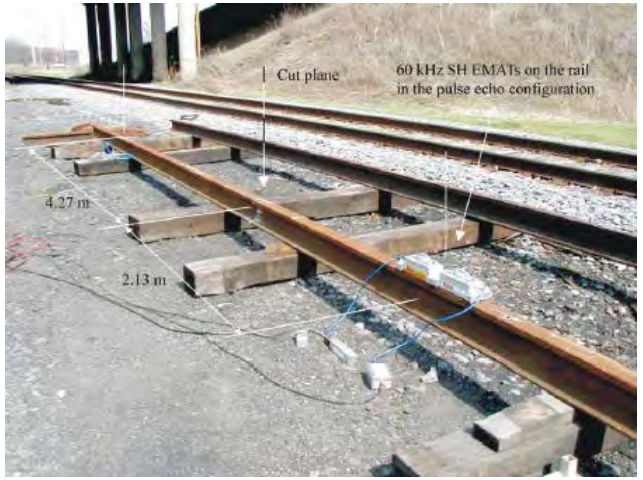
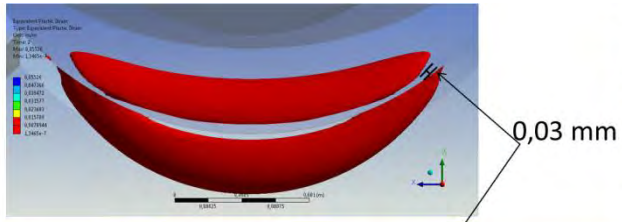
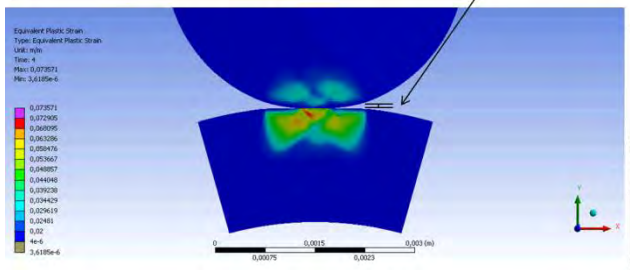
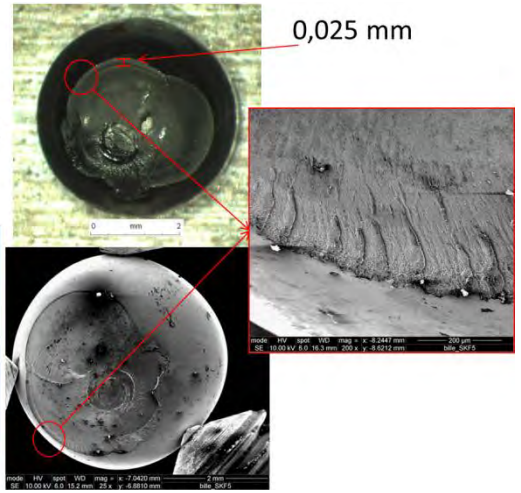


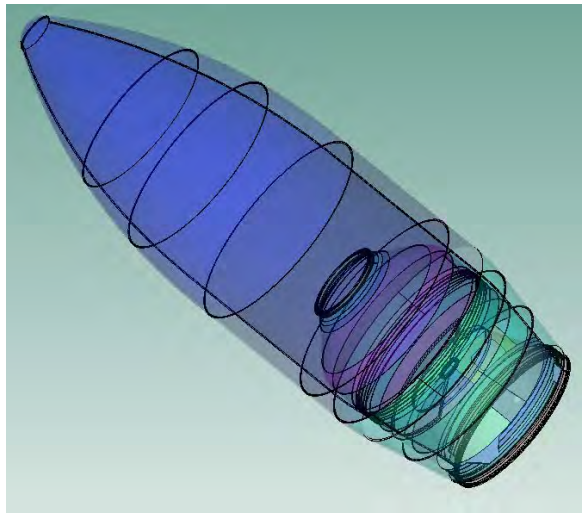
Applicazioni Tecnologiche: Vehicles (1)

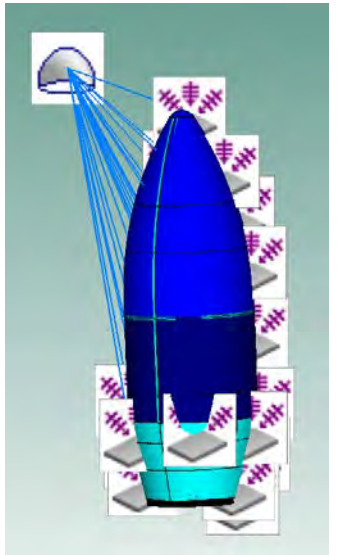




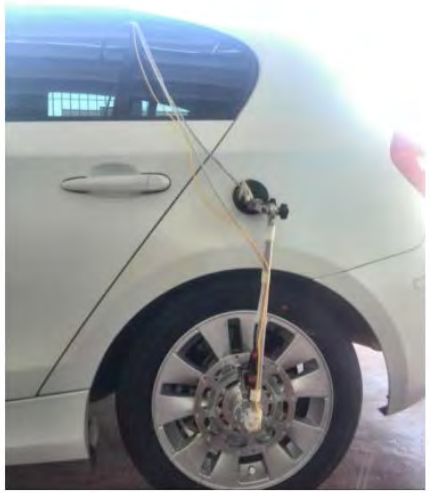


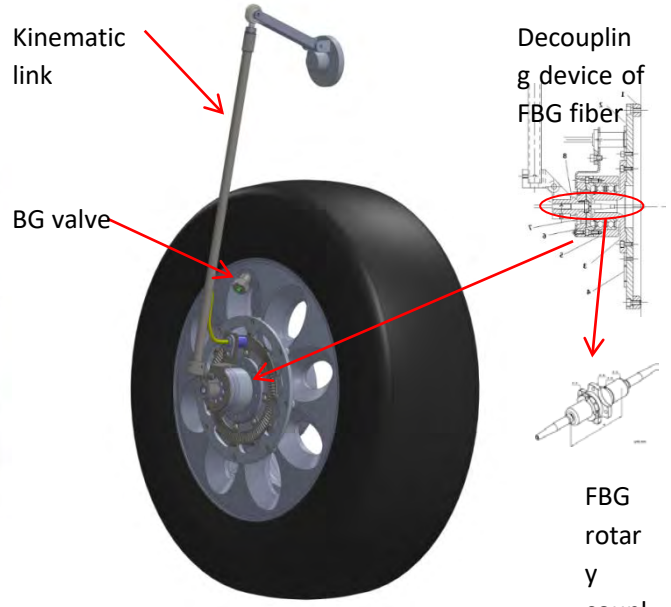


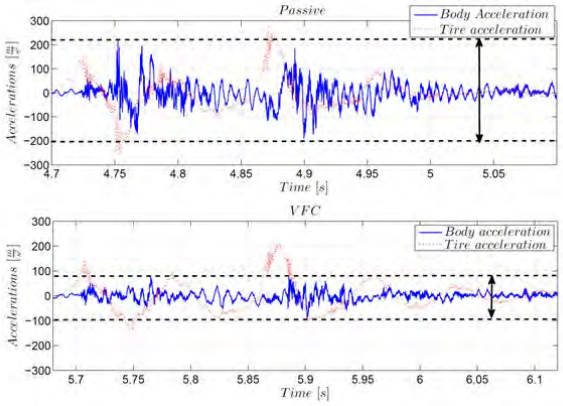


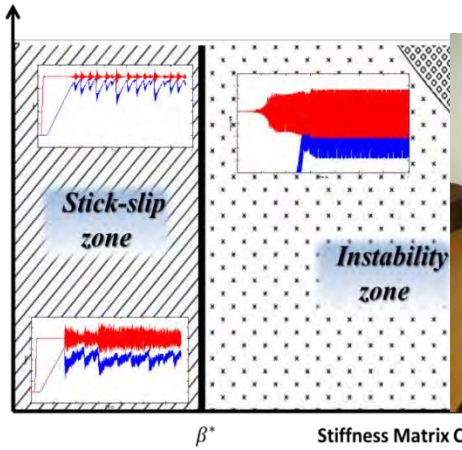


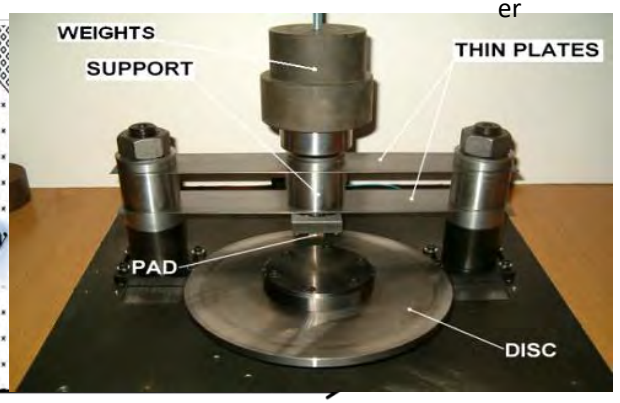
Applicazioni Tecnologiche: Vehicles (2)



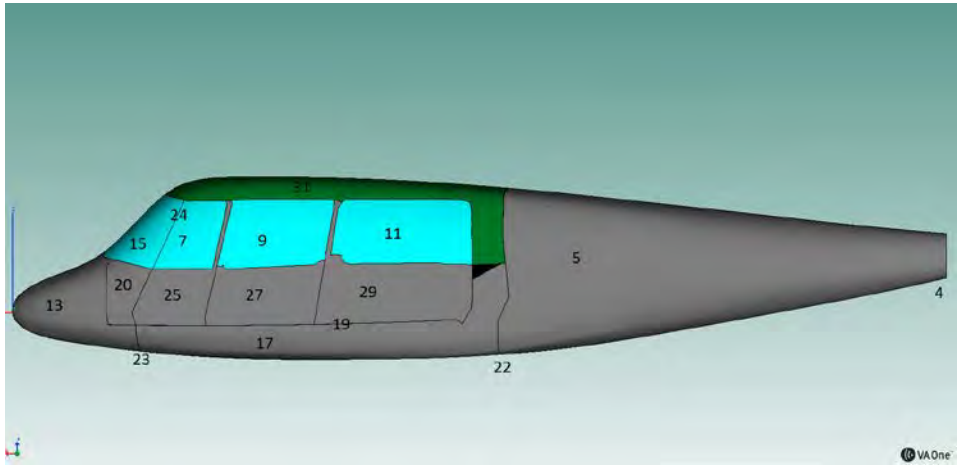


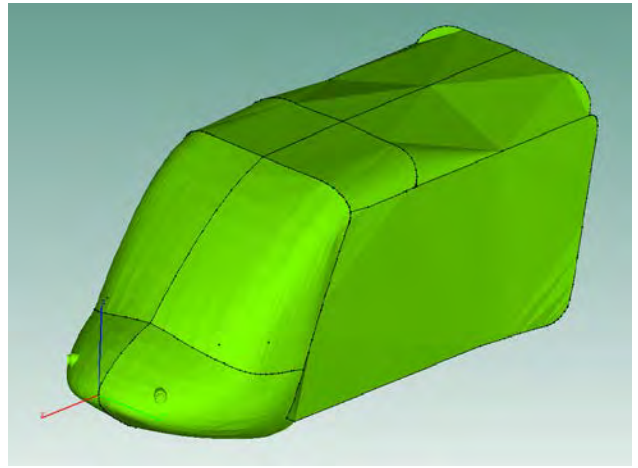


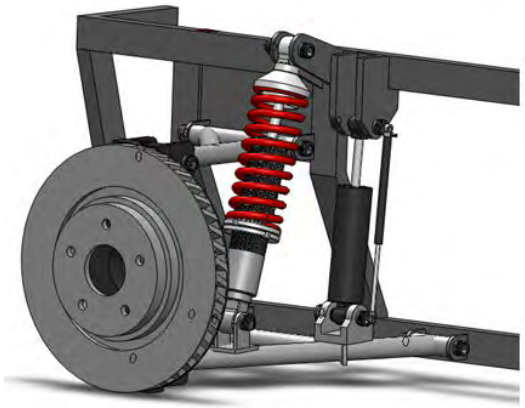


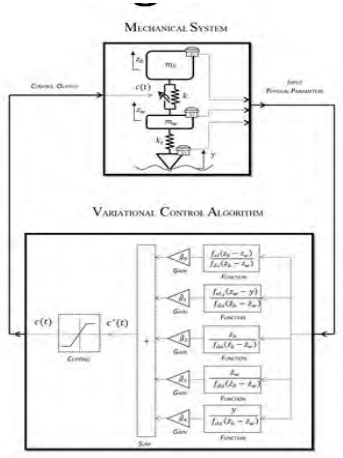


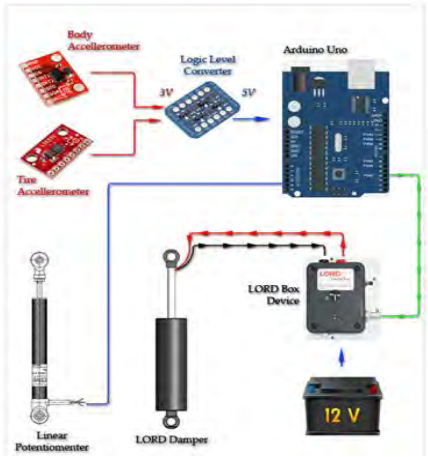
Applicazioni Tecnologiche: Vehicles (3)



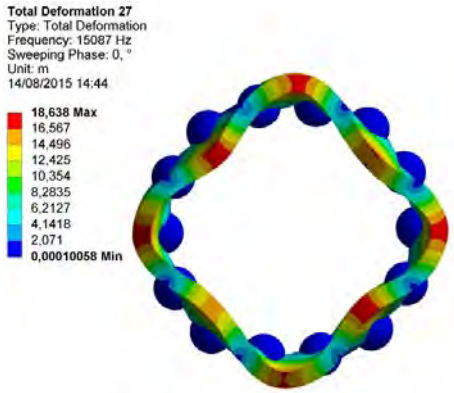


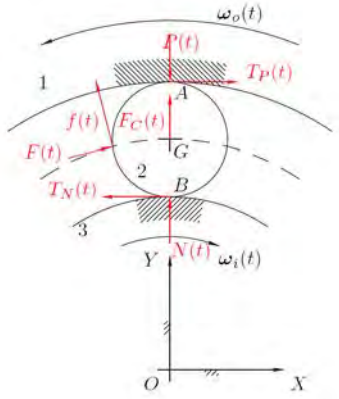


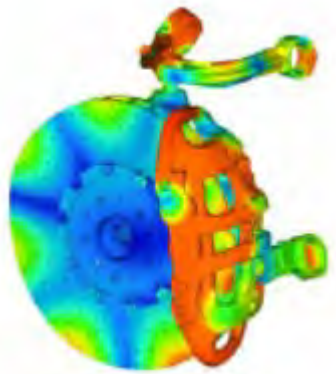


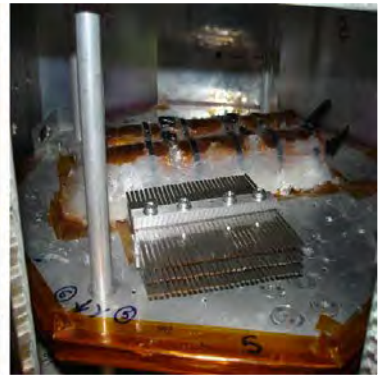


Applicazioni Tecnologiche: Vehicles (4)









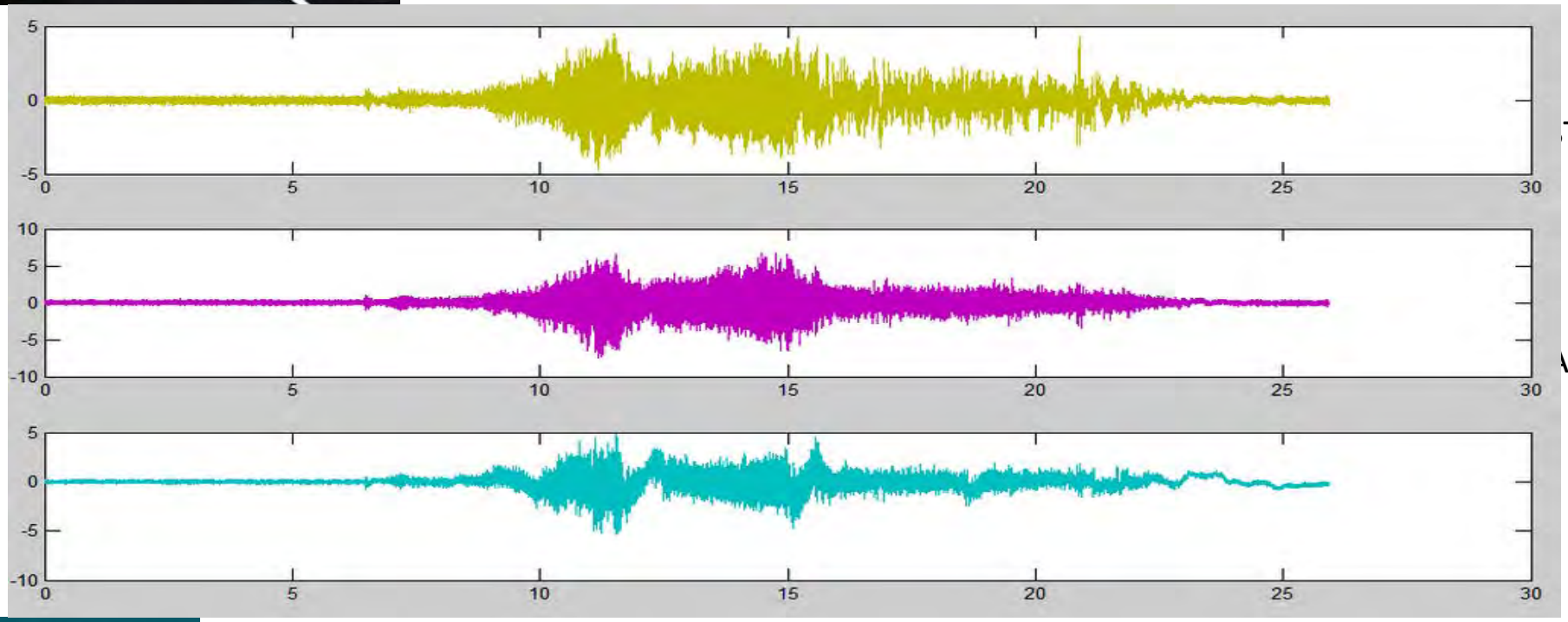
Applicazioni Tecnologiche: Vehicles (5)

- ✓ REAL TIME ANALYSIS OF POTENTIAL DAMAGE ON THE CAR BODY
- ✓ MONITORED FLEET ABOUT 4.000.000 CARS
- ✓ OBU – ON BOARD UNIT MOUNTS MEMS SENSORS + DEDICATED ELECTRONICS FOR THE RUN OF FIRST STAGE DAMAGE DETECTION
- ✓ OBU IS EQUIPPED WITH RADIO TRANSMITTER: A DIPATCH IS SENT TO THE HQ IN CASE OF POTENTIAL FAILURE FOR FURTHER SIGNAL PROCESSING (FILTER)

Automotive Damage Detection

OTENTIAL DAMAGE ON THE CAR BODY

T 4.000.000 CARS



- ✓ TAGE DAMAGE
- ✓ AILURE FOR

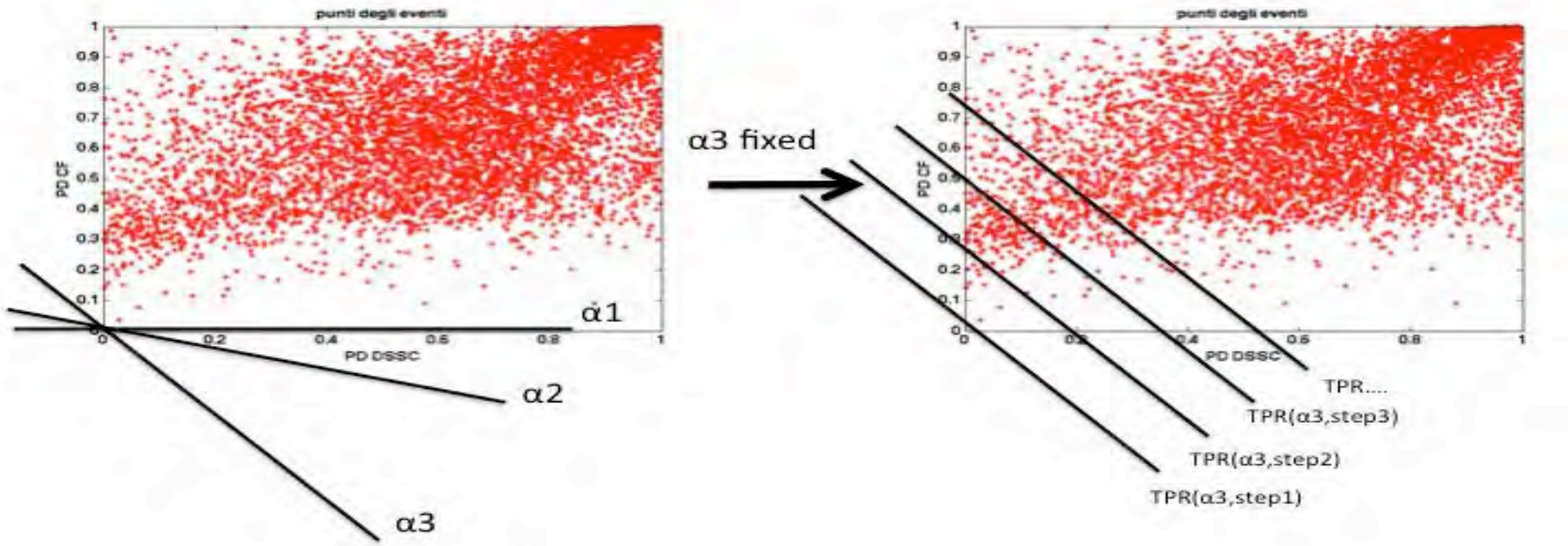
Automotive Damage Detection

- ✓ OBU IS EQUIPPED WITH RADIO TRANSMITTER: A DIPATCH IS SENT TO THE HQ IN CASE OF POTENTIAL FAILURE FOR FURTHER SIGNAL PROCESSING (FILTER)
- ✓ STRUCTURAL MOTION + RIGID BODY MOTION
- ✓ - **DEEP-LEARNING, NEW METRICS-FEATURE, KERNEL-MACHINE SVM, DECISION MAKING**

NEW METHODS IN CRASH DETECTION

- EXSAT

  ATOMIC COMBINATION OF TWO METHODS (VARIATIONAL APPROACH)

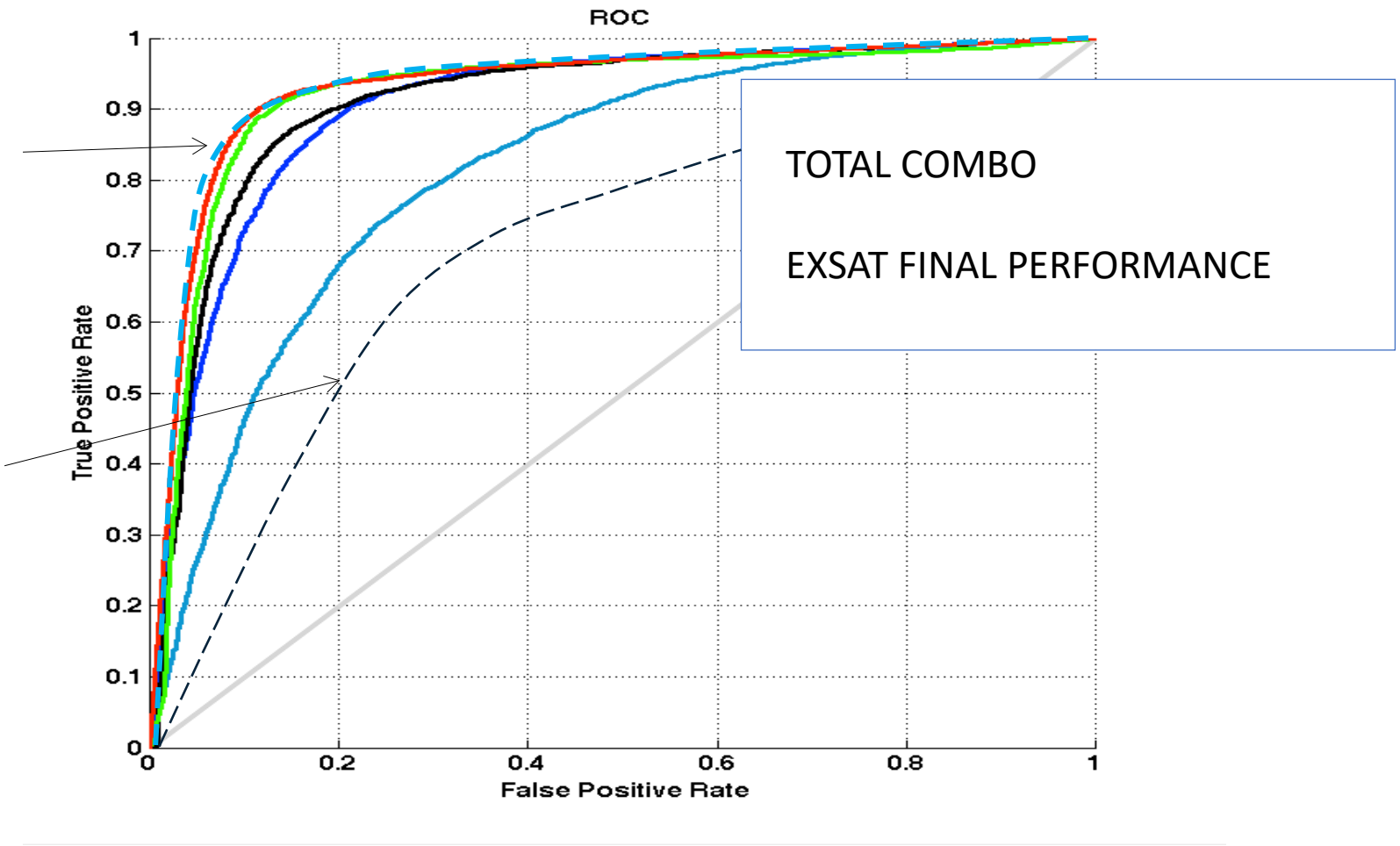


NEW METHODS IN CRASH DETECTION

- Supereasy

A.C.=After Crash 2.0

B.C.= Before Crash 2.0



TOTAL COMBO

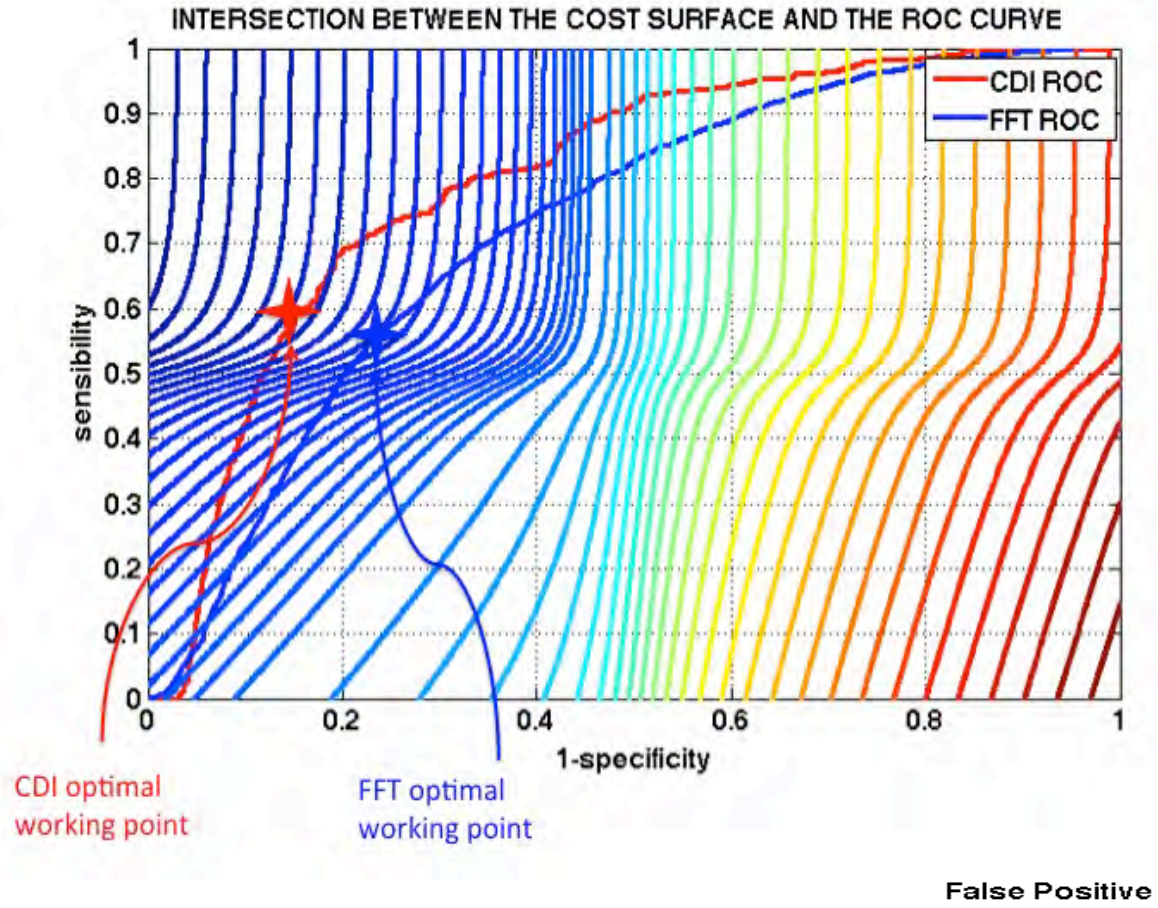
EXSAT FINAL PERFORMANCE

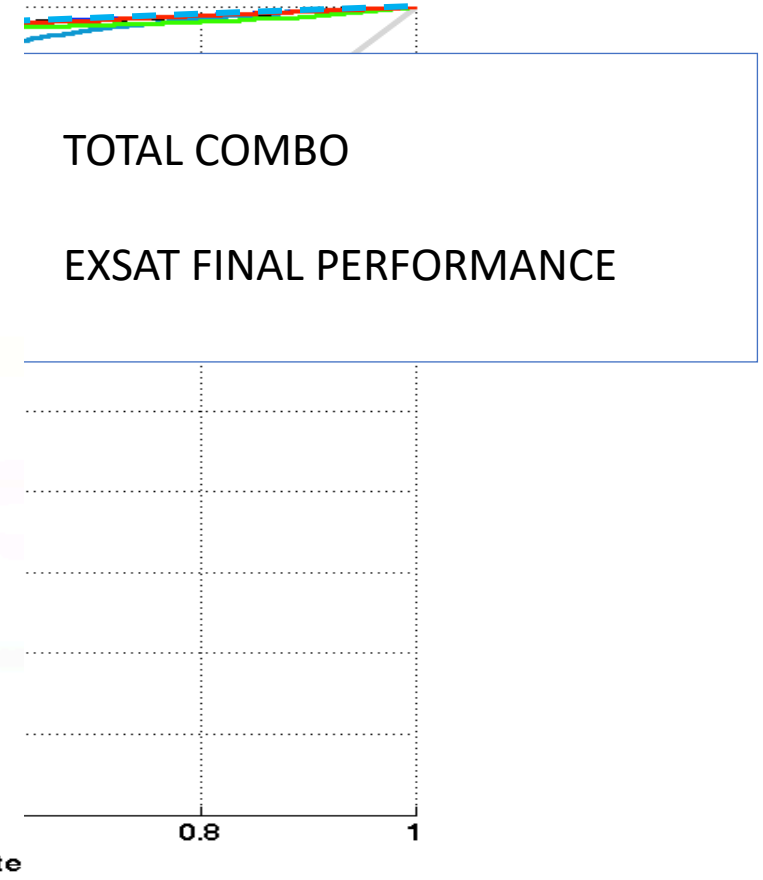
NEW METHODS IN CRASH DETECTION

- Supereasy

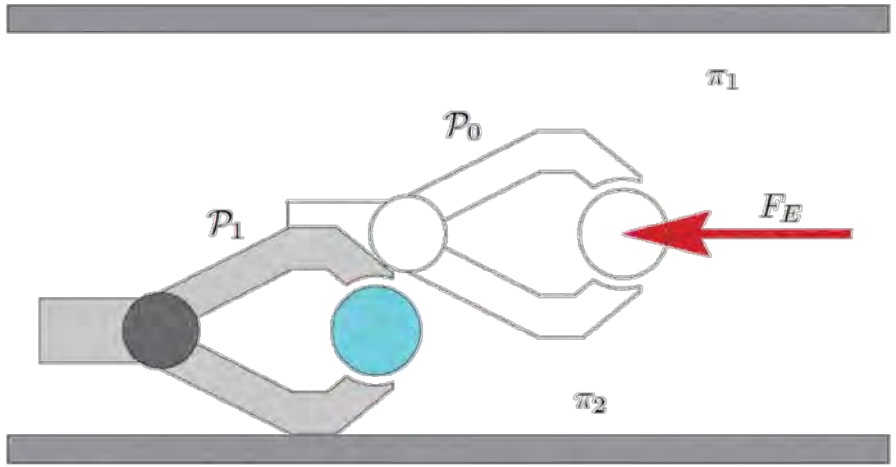
A.C.=Aft

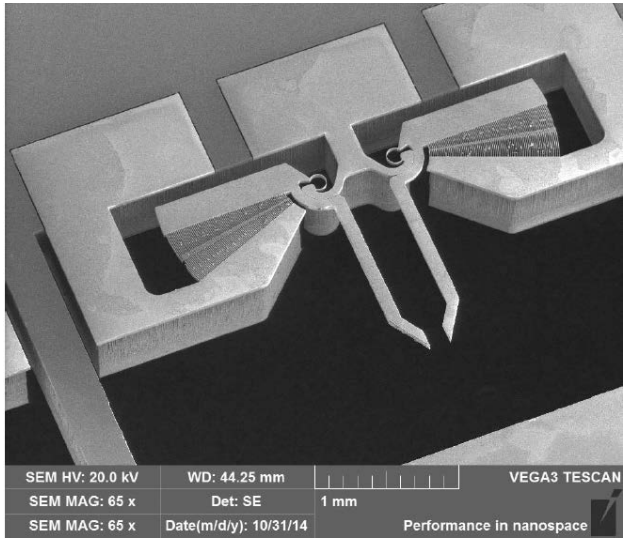
B.C.= Before

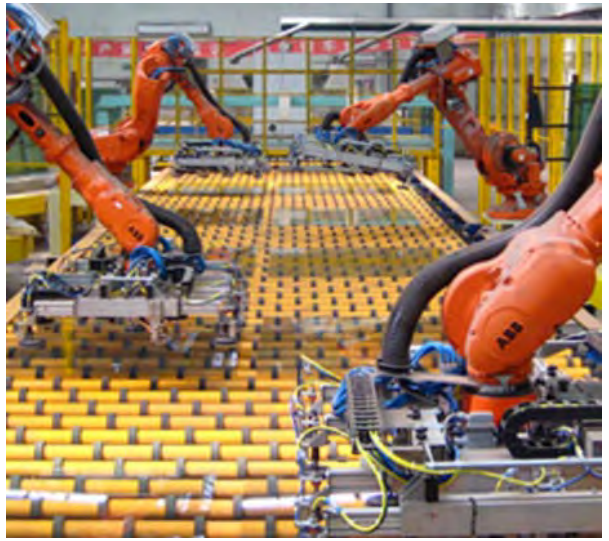


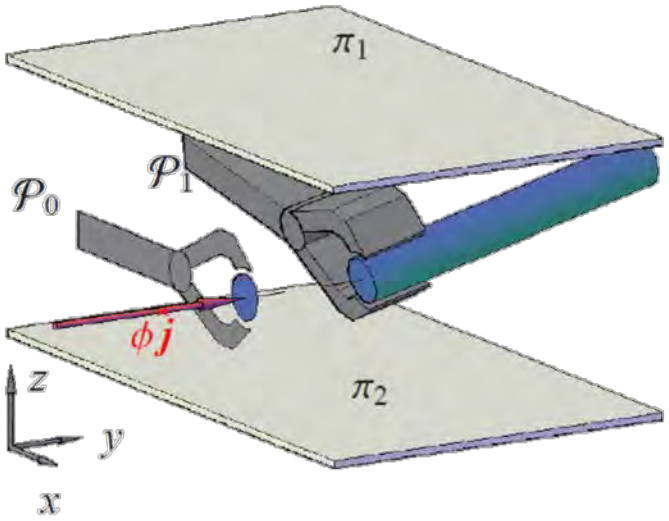


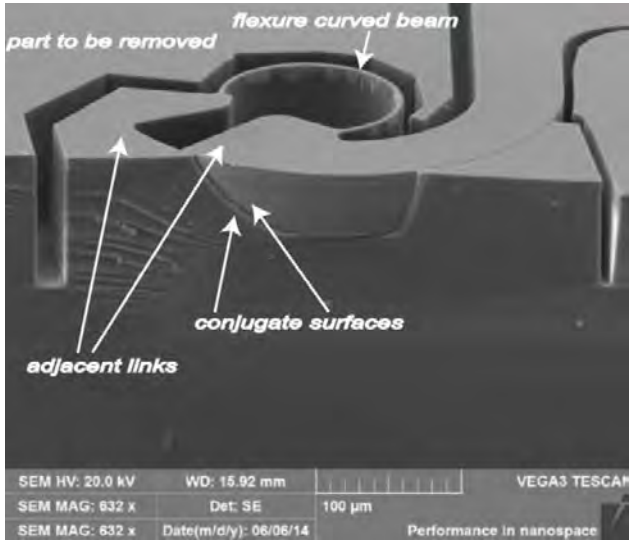
Applicazioni Tecnologiche: Robotics



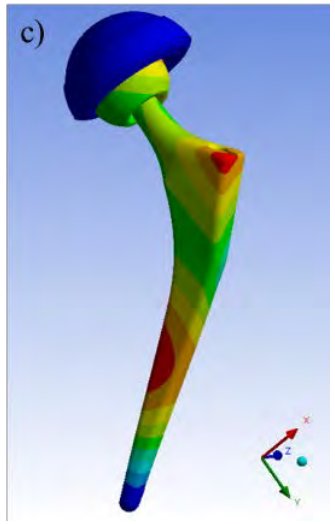


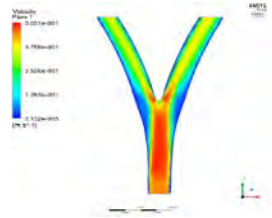


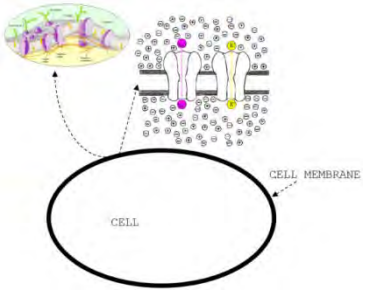


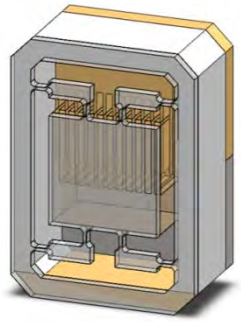


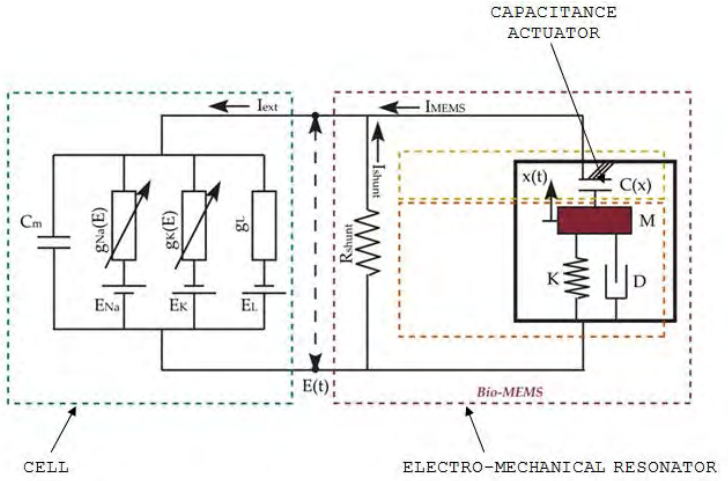
Applicazioni Tecnologiche: Biomechanics



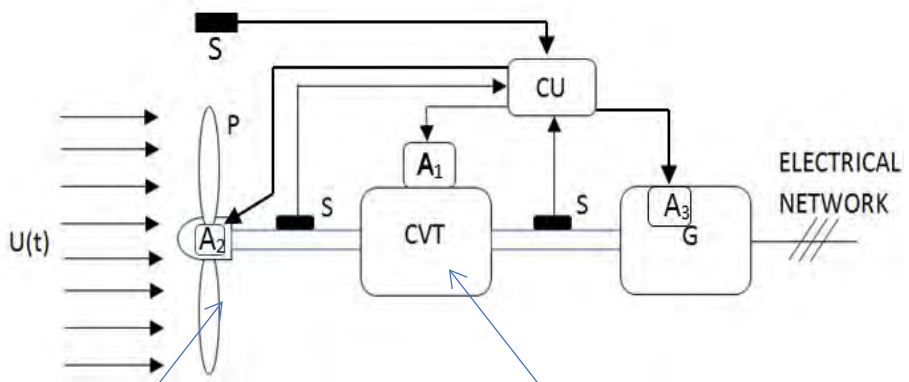


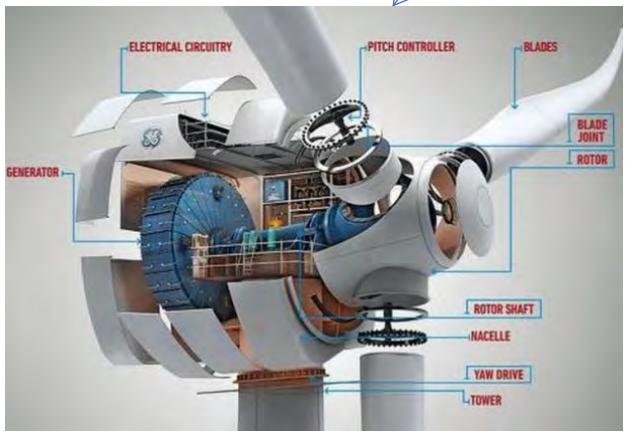






Applicazioni Tecnologiche: Large Structures (1)





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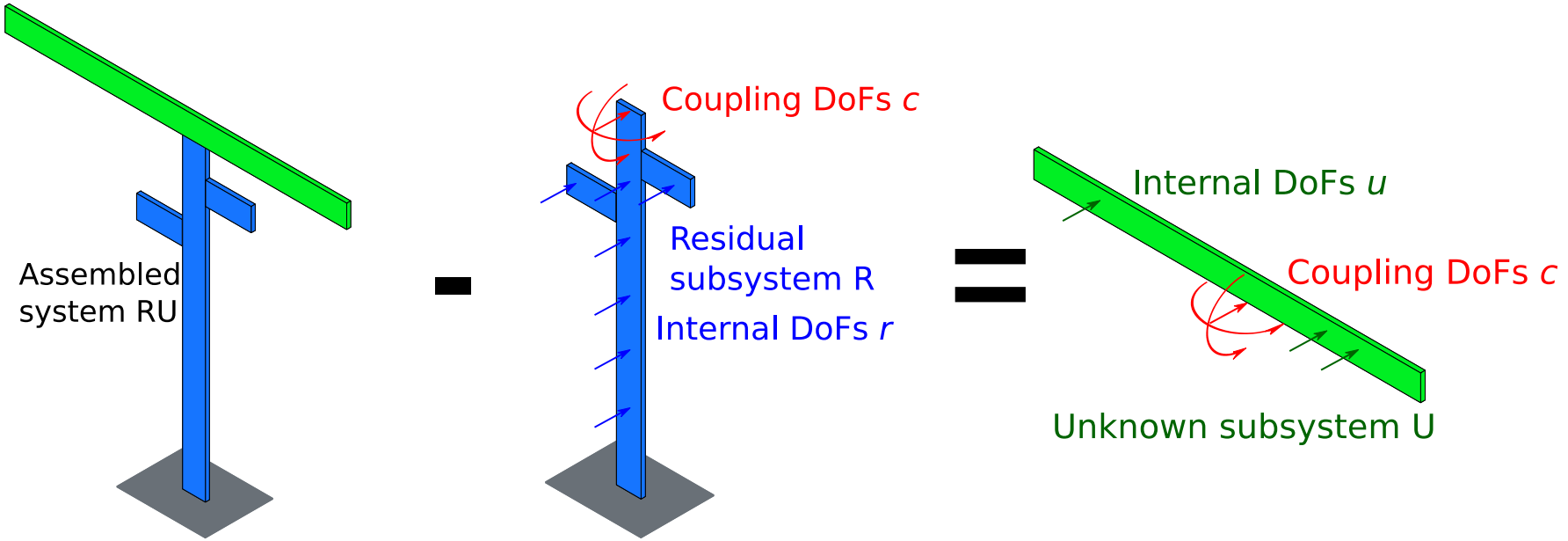

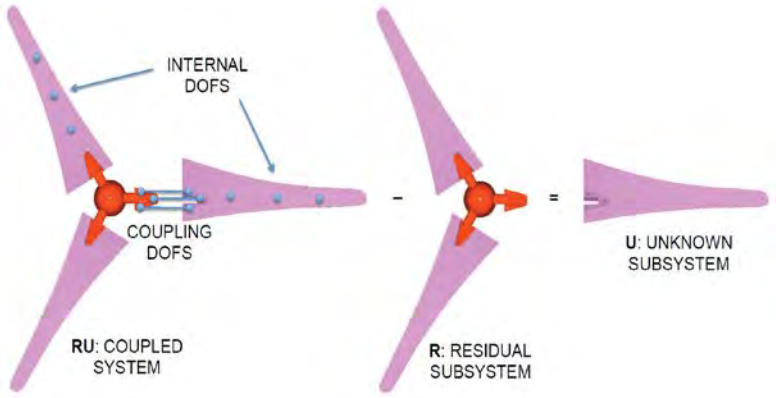

Applicazioni Tecnologiche: Large Structures (3)