

## Embedded Systems 2022/2023: WIP projects' list (09/01/2023)

- GPP/ASP
  - o Analysis and experimental evaluation of ASIP design flows
    - <https://www.synopsys.com/dw/ipdir.php?ds=asip-designer>
    - <https://codasip.com/products/codasip-studio/>
    - <http://ip.cadence.com/ipportfolio/tensilica-ip>
    - <https://www.andestech.com/en/homepage/>
    - <http://www.archc.org/>
    - ...
- Digital Camera use case
  - o Development of a parallel Digital Camera
    - Multi-GPP/SPP for DCT
- Advanced Operating Systems
  - o FREERTOS
    - Analysis and experimental evaluation of FreeRTOS on ATmega328P
      - e.g., Digital Camera, Pacemaker
- SystemC
  - o Analysis and experimental evaluation of SystemC-TLM (Transaction Level Modeling)
- Design Methodologies
  - o Analysis and experimental evaluation of ESL methodologies
    - SystemCoDesigner, CoFluent, Daedalus/Sesame, SpaceStudio, Metropolis, SystemCoDesigner, ForSyDE, Poseidon Design, SCE (System-on-Chip Environment), Koski, PeaCE/HoPES, MAPS, ...
  - o Experimental evaluation and improvement of HEPHYCODE
    - Use cases modeling
    - MDE Eclipse-based GUI and code-generation
    - ...
  - o Analysis and experimental evaluation of CPS methodologies
    - MODELICA, Ptolemy/Ptolemy2, ...
- Opportunities with Thales Alenia Space Italy (AQ)
  - o See [http://www.pomante.net/sito\\_gg/EmbeddedSystems2223/TASI\\_AQ\\_2023.pdf](http://www.pomante.net/sito_gg/EmbeddedSystems2223/TASI_AQ_2023.pdf)

Please, check also here for other opportunities (some are still available):

[http://www.pomante.net/sito\\_gg/Thesis2021.htm](http://www.pomante.net/sito_gg/Thesis2021.htm)