SMART NURSERY

Invitation to jointly develop a proposal to the ASEAN-IVO call

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ASEAN-IVO 2018 forum
Hotel Sari Pacific Jakarta, Indonesia, 27 November 2018

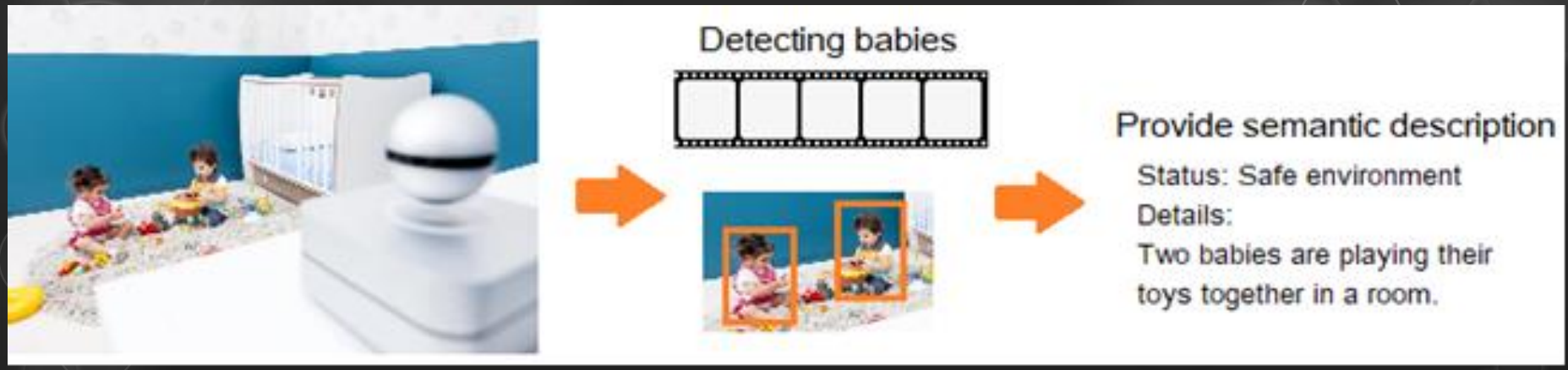
Smart Nursery

Value-added Applications with AI

- Smart nursery is a big research area spanning over various activities with the aims to promote well-being and well-upbringing of children.
- One of the potential focus area will be on research and development of a monitoring system that collects visual and/or audio information of children with the ages from one month to 60 months old (tentatively).

Smart Nursery

Value-added Applications with AI



Our R&D objectives focus on improving the process and algorithm development.

- **Data analytics**
- **Enhancing the quality of localization and detection accuracy**
- **Bridging the detection to activity recognition**

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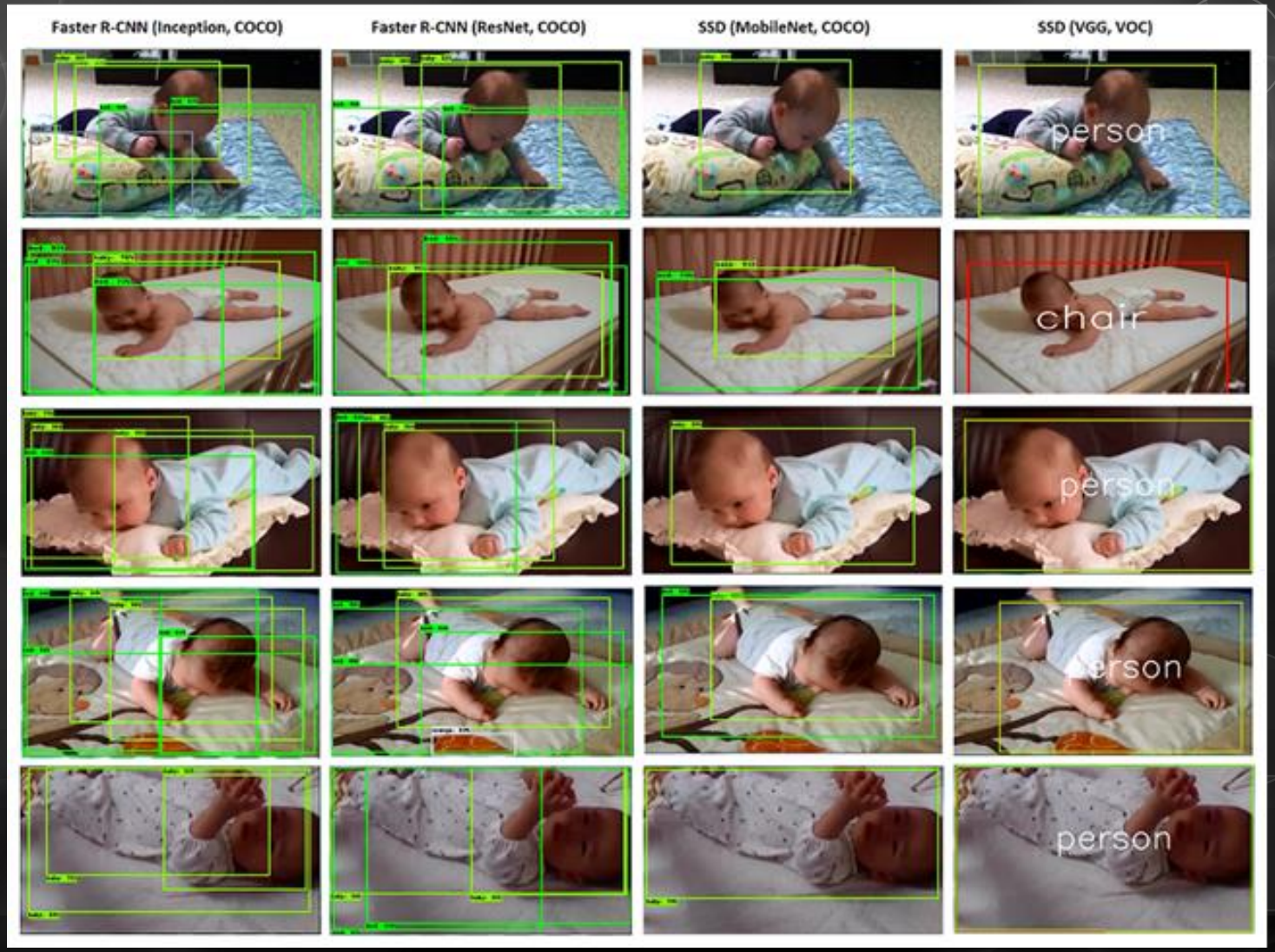
Value-added Applications with AI



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Value-added Applications with AI

AI is revolutionizing the way we live

Semantic content of activities can be inferred with two different tactics:

- **a knowledge-based framework**
- **an encoder-decoder framework**

Value-added from AI on top of visual, audio, video and historical data can provide a game change in the way our children are brought up.

Smart Nursery

Value-added Applications with AI

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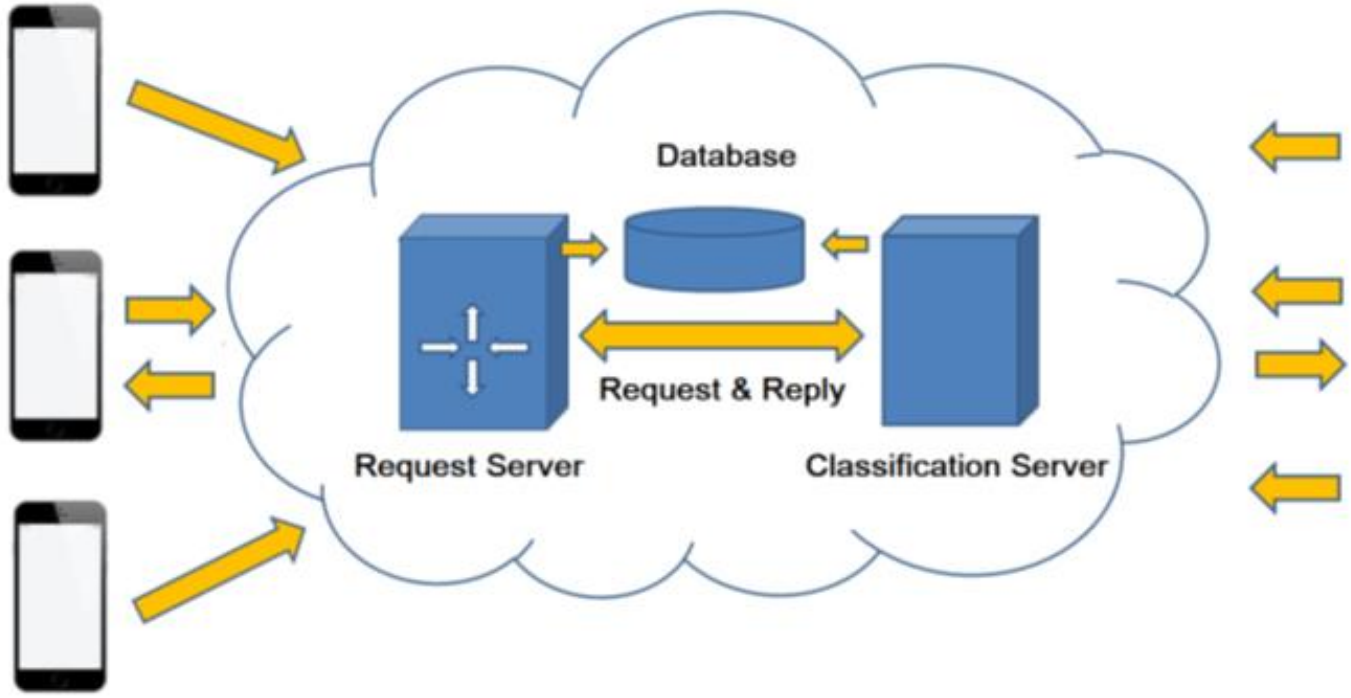

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Value-added Applications with AI

AI is revolutionizing the way we live

Smart Monitoring:

- Detection of various physical conditions e.g., breathing patterns, sleep patterns, movements, etc.
- Detecting abnormal environmental conditions e.g., temperature, humidity, lighting, noise, etc.

Big Data:

- Analysis of children's development e.g., growth
- Diagnose children's problems e.g., autism
- Predict complex health situations e.g., unconventional sleep patterns.

Cognitive Computng:

- Understanding senses/environment.

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Value-added Applications with AI

Propose time-line

- Brainstorm on the topic and direction (2 weeks)
- Identify work packages (1 week)
- Identify project leader and team (by December 2018)
- Collaboratively develop a proposal

Smart Nursery
Value-added Applications with AI

SUMMARY, Q&A

- Look for partners who are interested in this direction
  - Smart sight camera, smart city
  - Data analytics, Event analysis
- Leverage on relevant Technology
- Create value-added application in the area(s) below
  - Applications
    - Early childhood development e.g., data analytics
    - Safety and well-being e.g., infant care

Pls contact: Centre for Innovative Engineering

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