

# FM02

## Poster Session

13:30-15:30

Chair1 : Tae-Jung Lho ( Tongmyoung Univ., Korea)

Room : Base 2nd Floor-Zillertal

Chair2 :

FM02-13

### Estimating reliability of reactor inspection robot using Bayesian Belief Nets

Heung Seop Eom, Jae Hee Kim(Korea Atomic Energy Research Institute, KOREA)

- Current status of reliability estimation techniques for robot systems
- Description of Bayesian Belief Nets(BBN) with an example
- Description of proposed reliability estimation method which combines all information necessary
- Application example of the method : the reactor inspection robot
- Results from the reliability estimation of reactor inspection robot
- Discussion on the proposed method (advantages and problems)
- Conclusion

FM02-14

### A Study on Off-Line Programming of Robot Path for Footwear Bonding Automation

Tae-Jung Lho, Woo-Sung Che, Dong-Jung Kang, Se-Hoon Song, Seong-Ji Cho(Tongmyoung Information Univ., KOREA)

- Contents 1. Introduction
- Contents 2. System Configuration
- Contents 3. Robot Kinematics
- Contents 4. Shoe outsole shape display program and creating data
- Contents 5. Conclusions

FM02-15

### Embodiment of effective Multiple-robot control algorithm using Petri-Net

Seoung-Won Sun, Jin-Ho Choi, Chae-Wook Chung, Tae-Yong Kuc(Sung Kyun Kwan Univ., KOREA)

1. Introduction
  2. Petri-Net
  3. Dynamic environment recognition
  4. Simulation
  5. Conclusion
- References

FM02-16

### Embodiment of Simultaneous Localization of Mobile Robot Using Multisensor Combination.

Jin-Ho Choi, Seoung-Won Sun, Tae-Yong Kuc(Sung Kyun Kwan Univ., KOREA)

- Multisensor
- Localization
- GPS
- Dead Reckoning
- Indoor Environment

FM02-17

### A Navigation Algorithm for Autonomous Mobile Robots Using Artificial Immune Networks and Neural Networks

Insic Kim, Minjung Lee, Youngkiu Choi(Pusan Nat'l Univ., KOREA)

1. Introduction
2. Artificial Immune Networks and Navigation Algorithm
3. Obstacle Avoidance and Goal Approach Behavior
4. Weights Adjustment Using Neural Network
5. Velocity Control and Local Minimum Avoidance
6. Simulation
7. Conclusion

FM02-18

### Trajectory Control of Robotic Manipulator using Fuzzy Computed Torque Method

Donghee Kang, Minjung Lee, Youngkiu Choi(Pusan Nat'l Univ., KOREA)

1. Introduction
2. Computed Torque Controller
3. Controller Design
4. Simulation and Experiment
5. Conclusions