

Director: Jionghua (Judy) Jin

## Data Fusion: key to success

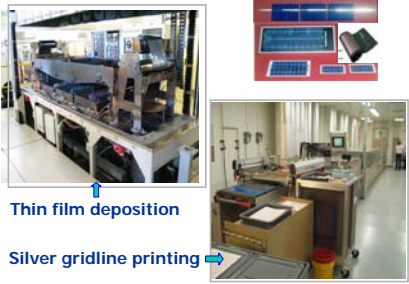
The integration of data and knowledge collected from disparate sources by different methods into a consistent, accurate, and useful whole.  
(Encarta Webster's Dictionary of English Language)



## Key research issues:

- optimal distributed sensing (what/where/how many...)
- information extraction (heterogeneous data, mixed cluster patterns...)
- knowledge discovery (modeling, inference, diagnosis...)
- real time control and decision making (multiple objective and risk assessment...)

## Applications



Thin film deposition  
Silver gridline printing

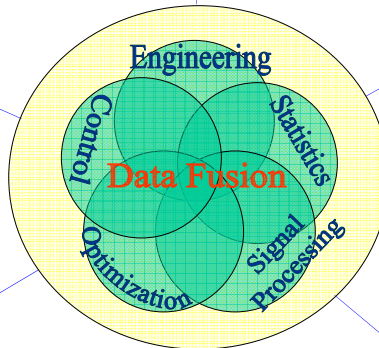

Photovoltaic solar cell manufacturing process  
(Sponsor: Global Solar Energy Inc./Department of Energy)



Multistage autobody assembly process  
(Sponsor: Ford Motor Company)




Rolling manufacturing process  
(Sponsor: MEDC; Collaborator: OG Tech.)

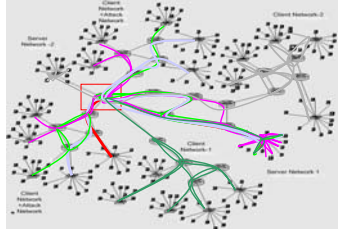
Multioperation forging manufacturing process  
(Sponsor: NSF; Collaborators: OG Tech./FormTech)



Predicting and Prescribing Human Decision Making  
(Sponsor: AFOSR-MURI; Collaborators: ASU/OSU/UoF)



Travel time estimation for traffic monitoring & control  
(Sponsor: USDOT-BTS)



Computer network monitoring for intrusion detection  
Sponsor: State of Arizona; Collaborator: CAT at UA