PERSONAL INFORMATION

Amit Manohar Manthanwar

3 Sterling Apartment, Warje, Pune 411058, India
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manthanwar@hotmail.com
Date of birth 25 June 1978 | Nationality Indian

JOB APPLIED FOR

Sorbonne Université SOUND.AI PhD

WORK EXPERIENCE

Jun 2019 – Present

Researcher/Independent Consultant

Independent Research Consultancy
Warje, Pune 411058, India

- Research Investigator for Cloud Platform Architecture
- Develop Analytic Tools and Software Solutions for Bigdata Automation
- Develop and Manage Consortia-led Collaborative Research Projects

Jan 2017 - Mar 2019

Program Manager

Texas A&M University
College Station, TX 77843, USA

- Manage Regional Center of Smart Manufacturing Institute (cesmii.org)
- Develop Lab and Pursue Research on Smart Manufacturing (Industry 4.0)
- Manage Projects, Trainings, Memberships, and Outreach Activities

Sep 2015 – Dec 2017

Research Assistant

Texas A&M Energy Institute
College Station, TX 77843, USA

- Develop Lab and Pursue Fuel Cell Energy Systems Research
- Pursue Advanced Automation and Control Research
- Teach Advanced Process Optimisation and Control

Feb 2012 – Aug 2015

Research Assistant

Imperial College London
South Kensington, London SW7 2AZ, UK

- Develop Lab and Pursue Fuel Cell Energy Systems Research
- Pursue Advanced Process Optimisation and Control Research
- Teach Advanced Process Optimisation and Control

Feb 2010 – Dec 2011

Lecturer of Instrumentation and Control

College of Engineering Pune
Shivajinagar, Pune 411005, India

- Pursue Advanced Process Optimisation and Control Research
- Develop Industrial Process Automation Laboratory
- Teach Advanced Process Optimisation and Industrial Control Automation

Aug 2007 – May 2009

Software Development Engineer

Invensys Development Centre (Invensys is now Schneider Electric)
IT Park, Madhapur, Hyderabad 500081, India

- Develop Industrial Automation and Control Software (Foxboro IA™)
- Develop Model Predictive Control Software (Connoisseur™)

EDUCATION AND TRAINING

Jan 2001 – May 2003

Master of Science, Chemical Engineering

ISCED 7

Illinois Institute of Technology, Chicago, USA

- Thesis Title: On the Tuning of Predictive Controllers

Aug 1995 – May 1999

Bachelor of Engineering, Petrochemical Engineering

ISCED 6

Maharashtra Institute of Technology, Pune, India

- Thesis Title: Plantwide Control

PERSONAL SKILLS

Mother tongue: English/Marathi

Other languages

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken Understanding	Spoken Production	
French	A1			
Italian	A1			

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user
Common European Framework of Reference for Language

Communication skills

- Team work: Led research consortia in the USA, UK, India, and EU
- Teaching: Taught systems engineering courses in the USA, UK, and India
- Mentorship: Supervised undergraduate and graduate students projects.
- Intercultural skills: Worked on the European Cultural Heritage

Organisational/managerial skills

- Whilst working for the US Smart Manufacturing Institute I have built the regional CoE, managed research teams from across the US universities and industry sectors, organised seminar series on smart manufacturing, and organised training workshops.projects

Digital competences

SELF-ASSESSMENT				
Information Processing	Communication	Content creation	safety	Problem solving
Advanced	Advanced	Advanced	Advanced	Advanced

Digital competences - Self-assessment grid

Computer skills

- Languages: C, C++, Java, Python, LaTeX, Matlab
- Web Technologies: HTML5, CSS, JavaScript, SQL, MongoDB,
- Cloud Platforms: AWS, Azure, NodeJS, Docker
- Microcontrollers: Arduino, ARM
- Operating Systems: Windows, Linux
- Applications: Geographic Information System (GIS), Industrial Automation
- Graphic Design: Inkscape, Illustrator, SketchUp, Infographic, Visualizations
- Office Productivity: Word, Excel, PowerPoint, SharePoint

Other skills: Creating river networks, graphic design using logical programming as against visual drawing, cooking, gardening

Driving licence: A, B

PUBLICATIONS

1. **Manthanwar**, A. M., Schneider, D. & Miller, S. *Smart Manufacturing Seminar Series and Training Workshops* Southern Regional Manufacturing Center. 2016-2019.
2. Lopes, T., Beruski, O., **Manthanwar**, A. M., Korkischko, I., Pugliesi, R., Stanojev, M. A., *et al.* Spatially resolved oxygen reaction, water, and temperature distribution: Experimental results as a function of flow field and implications for polymer electrolyte fuel cell operation. *Applied Energy* (2019).
3. Botcha, B., Wang, Z., Rajan, S., Gautam, N., Bukkapatnam, S. T. S., **Manthanwar**, A. M., *et al. Implementing the Transformation of Discrete Part Manufacturing Systems Into Smart Manufacturing Platforms* in *International Manufacturing Science and Engineering Conference* (2018).
4. **Manthanwar**, A. M. & Pistikopoulos, E. *Smart Manufacturing Framework for the Production of Hydrogen Energy* in *AIChE Spring Meeting and 12th Global Congress on Process Safety* (2016).
5. **Manthanwar**, A. M., Lopes, T., Atkins, S., A.R. Kucernak, A. & Pistikopoulos, E. N. *Novel in Situ Experimental Technique to Understand Inner workings of a Polymer Electrolyte Membrane Fuel Cell* in *AIChE Annual Meeting Proceedings* (2015).
6. Pistikopoulos, E. N., Diangelakis, N. A. & **Manthanwar**, A. M. *Towards the integration of process design, control and scheduling: Are we getting closer?* in *12th International Symposium on Process Systems Engineering and 25th European Symposium on Computer Aided Process Engineering* (2015).
7. Diangelakis, N. A., **Manthanwar**, A. M. & Pistikopoulos, E. N. *A Framework for Design and Control Optimisation: Application on a CHP System* in *Proceedings of the 8th International Conference on Foundations of Computer-Aided Process Design* (2014).
8. **Manthanwar**, A. M., Lopes, T., Pistikopoulos, E. & Kucernak, A. *Multi-Scale Experimental Analysis, Robust Optimisation and Explicit Model Predictive Control of Fuel Cell Energy Systems* in *The Hydrogenand Fuel Cell Researcher Conference, Birmingham, UK* (2014).
9. **Manthanwar**, A. M. *Software Integration bridge for Foxboro Intelligent Automation (I/A) Distributed Control System (DCS), version 1.4* Invensys Operations Management (now Schneider Electric) (2009).
10. **Manthanwar**, A. M. *Model Predictive Control Software Connoisseur(TM): the advanced process control performance suite, version 15.3* Invensys Process Operations (now Schneider Electric) (2008).
11. **Manthanwar**, A. M., Sakizlis, V., Dua, V. & Pistikopoulos, E. N. Robust model-based predictive controller for hybrid system via parametric programming. *Computer Aided Chemical Engineering* (2005).
12. **Manthanwar**, A. M., Sakizlis, V. & Pistikopoulos, E. N. *Design of Robust Parametric MPC for Hybrid Systems* in *IFAC World Congress* (2005).
13. **Manthanwar**, A. M., Sakizlis, V. & Pistikopoulos, E. N. *Robust Parametric Predictive Control Design for Polytopically Uncertain Systems* in *American Control Conference* (2005).
14. Peng, J.-K., **Manthanwar**, A. M. & Chmielewski, D. J. On the Tuning of Predictive Controllers: The Minimum Back-Off Operating Point Selection Problem. *Industrial and Engineering Chemistry Research* (2005).
15. Chmielewski, D. J. & **Manthanwar**, A. M. On the Tuning of Predictive Controllers: Inverse Optimality and the Minimum Variance Covariance Constrained Control. *Industrial and Engineering Chemistry Research* (2004).
16. Chmielewski, D. J., Peng, J.-K. & **Manthanwar**, A. M. *Convex methods in actuator placement* in *American Control Conference* (2002).

REFERENCES

- Donald J. Chmielewski, Professor of Chemical Engineering, Illinois Institute of Technology, USA
  chmielewski@iit.edu | +1 312 567 3537
- Jim Davis, Professor of Chemical Engineering, University of California, Los Angeles, USA
  jfdavis@ucla.edu | +1 310 922 6327
- B. Wayne Bequette, Professor of Chemical Engineering, Rensselaer Polytechnic Institute, USA
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- Stratos Pistikopoulos , Professor of Chemical Engineering, Texas A&M University, USA
  stratos@tamu.edu | +1 979 458 0259

- Nilay Shah, Professor of Chemical Engineering, Imperial College London, UK
  n.shah@imperial.ac.uk | +44 207 594 6621
- AnthonyKucernak, Professor of Chemistry, Imperial College London, UK
  anthony@imperial.ac.uk | +44 207 594 5831