VENKATESH PUCHAKAYALA APPAIAH SUBRAMANYAM

PROJECTS

Crashworthiness simulations for Fokker F-28 & Flying-V Delft University of Technology

- Simulated crashworthiness for Fokker F-28 and Flying-V using Abaqus.
- Currently working on converting Abaqus models to OpenRadioss environment using HyperMesh.

Thin film sensors for gas turbine blades Non-Ferrous Materials Technology Development Center

- Developed the architecture and finalized the materials for the thermocouple and strain gauge, bond coat, and insulation coat.
- Optimized the deposition parameters for these materials using Direct Current and Radio Frequency magnetron sputtering.
- Designed the testing setup for the strain gauge and integrated the system using LabVIEW software for testing and calibration.

Thin film Kesterite-based solar cells Non-Ferrous Materials Technology Development Center

- Optimized the deposition parameters for back contact, p-type, n-type, window, and contact layers using magnetron sputtering and thermal evaporation systems.
- Achieved an efficiency of 1.08 %.

Sulfurization setup for synthesizing Kesterite Non-Ferrous Materials Technology Development Center

- Designed and developed an in-house sulfurization setup for synthesizing Kesterite from scratch.
- Successfully optimized the parameters for the sulfurization process on a Zn/Sn/Cu substrate thereby synthesizing Kesterite.

Estimation of Structural Parameters for Ge-C alloys V N R Vignana Jyothi Institute of Engineering and Technology

- Developed a model to calculate the free energies for a generic 2D binary alloy system using a cluster variation approach using Mathematica.
- Phase diagrams were plotted based on these free energies for Ge-C alloys.

PROFESSIONAL EXPERIENCE

- Successfully led a team of 35 retail outlet dealers (gas stations) and 6 contract vendors in Dindigul district, Tamil Nadu ensuring zero safety, quantity, or quality issues.
- Achieved a year-on-year market share growth of +1.1% in Motor Spirit and +3.2% in High-Speed Diesel.
- Successfully commissioned 6 new retail outlets in Dindigul district.
 Negotiated and secured high-volume customers, acquiring a monthly volume of 350 kL of High-speed Diesel.
- Successfully advocated for the standardization of facilities across the retail area network, achieving standardization at 17/17 A-site retail outlets and 17/18 B-site retail outlets. Managed a budget of approximately Euro 700,000 for the company's scope of work for the standardization process.
- Developed a comprehensive retail marketing plan (launched in 2023) by mapping prospective candidates for the Dindigul district.

EDUCATION

Delft University of Technology - NL Master of Science in Aerospace

- Profile: Design and Safety of Structures
- GPA: 8.0/10.0

National Institute of Technology, Warangal - IN

Master of Technology in Materials and Systems Engineering

DesignGPA: 7.53/10.0

🛗 Jul 2016 - Jul 2018

V N R Vignana Jyothi Institute of Engineering and Technology - IN Bachelor of Technology in Mechanical Engineering Sep 2012 - May 2016

• GPA: 8.67/10.0

*SKILLS

Abaqus	****
CATIA	****
HyperMesh	****
Mathematica	****
MATLAB	****
PowerBI	****
Python	****
Thin film deposition	****
SEM	****
XRD	****
UiPath	****
Business Negotiations	****
Organizational leadership	****
Sales and Marketing	****
Teaching	****

ACHIEVEMENTS

- Secured an All-India Rank 104 out of 167,376 candidates in the Graduate Aptitude Test in Engineering - Mechanical Engineering - 2019.
- Received an award for the highest retail outlet commissioning's under the Tamil Nadu state office at Indian Oil Corporation Limited.
- Represented the National Institute of Technology, Warangal, and V N R Vignana
 Jyothi Institute of Engineering and Technology in inter-university tennis tournaments.

VENKATESH PUCHAKAYALA APPAIAH SUBRAMANYAM

PROFESSIONAL EXPERIENCE

Assistant Professor

- Taught courses on Elements of Mechanical Engineering, Design of Machine Elements 1 & 2, and Engineering Graphics.
- Developed syllabus and contributed to creating course materials for "Design of Machine Elements 1 & 2".
- Started free coaching for university students for the "Graduate Aptitude Test in Engineering", a prestigious all-India competitive exam.

Research Intern

Non-Ferrous Materials Technology

Development Center PHyderabad, India Jun 2017 - Jun 2018

- Deposited thin film coatings, utilizing expertise in magnetron sputtering, thermal evaporation, and plasma spray coating systems.
- Examined and evaluated the microstructures using SEM and XRD, identifying the areas for improvement and translating into adjusting the deposition parameters.

™LANGUAGES

 Dutch
 ★★★★

 English
 ★★★★

 Hindi
 ★★★★

 Tamil
 ★★★★

 Telugu
 ★★★★

INTERESTS

- Long-distance runner with experience in half and full marathons.
- Passionate about tennis, Formula 1, and cricket.
- Like to write about tennis, formula 1, and technical articles on my blog: https://venkateshpas.com/blog.html.