

# **CURRICULUM VITAE**

**PANDU SUNIL KUMAR**

S/O P.M.MANI,

H-NO: 6-18/1, ADARSHANAGAR COLONY,

ROAD NO 3,

SERILINGAMPALLY (MANDAL),

RANGA REDDY (DIST),

PIN-5000019.

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## **Doctoral Studies (Thesis submitted)**

- PhD, Materials Engineering, in University of Hyderabad from (2012-present)

**Thesis title:** Distinguishing effect of different surface finishing techniques on the stress corrosion cracking susceptibility of 304L and 316L SS in chloride environment.

## **Publications:**

### **Journals/conferences**

[1] **Pandu Sunil Kumar**, Swati Ghosh Acharyya, S.V. Ramana Rao, Komal Kapoor. “Distinguishing effect of buffing vs. grinding, milling and turning operations on the chloride induced SCC susceptibility of 304L austenitic stainless steel”. **Materials Science and Engineering: A** **687** (2017) 193-199. <https://doi.org/10.1016/j.msea.2017.01.079>

[2] Praveen Chapala, **Pandu Sunil Kumar**, Joydip Joardar, Vasundhra Bhandari, Swati Ghosh Acharyya, Effect of alloying elements on the microstructure, coefficient of friction, in-vitro corrosion and anti bacterial nature of selected Ti-Nb alloys, **Applied Surface Science** **469** (2019) **617-623** <https://doi.org/10.1016/j.apsusc.2018.09.149>.

[3] **Pandu Sunil Kumar**, Swati Ghosh Acharyya. “Efficacy of buffing vs. peening to enhance stress corrosion cracking resistance of machined 304L SS in chloride environment” (**Submitted in Materials Characterization Journal**)

[4] **Pandu Sunil Kumar**, Swati Ghosh Acharyya, S.V. Ramana Rao, Komal Kapoor “ Surface buffing and its effect on chloride induced SCC of 304L austenitic stainless steel” **IOP Conf. Series: Materials Science and Engineering** **314** (2018) 012002 <http://iopscience.iop.org/article/10.1088/1757-899X/314/1/012002>

[5] **Pandu Sunil Kumar**, Swati Ghosh Acharyya “The effect of buffing on different surface working operations and to study microstructural changes by chloride induced SCC on 304L austenitic stainless steel”

NACE International Gateway India Section (NAGIS), CORCON international (2017).  
<http://icspl.org/Corcon%202017/html/PDF/CMT24.pdf>

[6] **Pandu Sunil Kumar**, Swati Ghosh Acharyya “Controlling chloride induced stress corrosion cracking of 316L SS in chloride environment by simple surface engineering ” **Materials Today: proceedings 15 (2019) 138-144** <https://doi.org/10.1016/j.matpr.2019.05.036>

[7] **Pandu Sunil Kumar**<sup>#</sup>, Kamal Mankari<sup>#</sup>, Swati Ghosh Acharyya “Distinguishing effect of buffing operation on surface residual stress distribution and susceptibility of 304L SS and 321 SS” <http://dx.doi.org/10.21741/9781945291890-22>.

### Areas of Interest:

- Mechanical Behaviour of Materials
- Manufacturing Technology
- Corrosion Engineering
- Surface Engineering
- Physical Metallurgy

### Research skills:

#### Instruments Operated

- Optical Microscopy
- Field emission scanning electron microscopy
- Vickers hardness testing machine
- Rockwell hardness testing machine
- X ray diffractometer (XRD)
- Tubular furnace

### Achievements:

- Selected in Rajiv Gandhi National Fellowship, University Grants Commission (UGC), Government of India, (Grant F1-17.1/2016-17/RGNF-2015-17-SC-TEL-19306 /(SA-III/Website)
- First prize in Inter college CHESS championship 2004.

### ACADAMIC PROFILE:

- **Master certificate in Tool Engineering (MCTE)** from **Central Institute of Tool Design, Balanagar.** With 72.25%.

- **ME (2012) ME Tool Design** from (Central Institute of Tool Design & Osmania University (collaborated)) A.P, with 62.20%.
- **B.Tech (2009) Mechanical Engineering** from DVR CET, JNT University, A.P. with 58.76%.
- **Intermediate (2005)** from Gowtham junior college, Board of intermediate education, A.P. with 54.3%.
- **X class (2002)** from university of Hyderabad campus school, Central Board of Secondary Education (CBSE), A.P. with 63.6%.

## TECHNICAL SKILLS:

- **Office suite:** MS-office.
- **Packages: CAD/CAE:** Auto Cad, ANSYS 14.5. Abaqus 6.13 , Creo-2, Catia V5 R18, Hypermesh, Unigraphics NX9, Solid Works.

**CAD/CAM:** DelCam, Unigraphics Cam, Master Cam, CNC programming.

## WORK EXPERIENCE:

Worked as a **Project Trainee** in S.K.M Technologies Pvt limited. Kukatpally, Gandhinagar Hyderabad from October 2010 to June 2011.

## PROJECT WORKS:

- **ME-Tool Design Project:**

### **DESIGN AND ANALYSIS OF MACHINING FIXTURE FOR NON-ROTATING SWASH PLATE OF HELICOPTER.**

By using Auto-Cad for 2D Drawings, CatiaV5 R17 for 3D Modelling, Solid works simulation Xpress for FEA (Analysis), From October 2010 to June 2011.

- **B.Tech Main Project:**

### **MODELING AND ANALYSIS OF WATER COOLED SHELL AND TUBE CONDENSER**

By using CATIA V5 for 3D Modelling and ANSYS 11.0 for FEA (Analysis). For 3 months in Infocad Software Solutions. Ameerpet, Hyderabad.

- **B.Tech Mini Project:**

**PROGRAMMING AND MANUFACTURING OF FLY WHEEL USING CNC MILLING.** For 15 days in Central Institute of Tool Design, Balanagar.

**STRENGTHS:**

- Co-operative
- Sincere.
- Obedient and hardworking.
- Ability to adjust to situation.

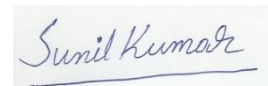
**PERSONAL PROFILE:**

**Name** : PANDU SUNIL KUMAR.  
**Date of Birth** : 04-01-1986  
**Father's Name** : P.M Mani  
**Gender** : Male  
**Marital Status** : Unmarried  
**Languages Known** : Telugu, English and Hindi  
**Nationality** : Indian

**DECLARATION:**

I hereby declare that the information furnished above is true and correct to the best of my Knowledge and belief.

**PLACE: HYDERABAD**



**(SUNIL KUMAR.P)**