
Name: Abraham Bezabeh
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Nationality: German
Education: Mechanical Engineer (Manufacturing) Technical University in Braunschweig

IT- Knowledge

Industries Mechanical Engineering, Aeronautical Engineering, Consulting, IT-company

Operating systems Unix (SVR4, AIX), Linux, DOS, Windows 9x, NT, 2000 and XP, Windows 7

Data base MS-Access (basic), MSSQL (basic)

Software MS-Office Professional, MS Exchange Server, MS-Visio, MS-Project, Lotus Notes

Engineering Packages PATRAN NASTRAN, ABAQUS (basic), Hypermesh (basic), ISSY (basic), CATIA V4, Enovia DMU Navigator, VPM, TAKSY, ZAMIZ, ISAMI(basic)

Knowledge of a language

German Mother tongue / oral and written fluency

English oral and written fluency

Italian oral and written fluency

Arabic oral fluency and reading ability

Tigrigna oral and written fluency
(Eritrean language)

Amharic oral and written fluency
(Ethiopian language)

Projects / Experiences

05/11 – 06/13

AIRBUS / Ferchau GmbH / Bishop GmbH in Hamburg/

Activity: Stress Wing Upper Cover (WUC) Interface in Generic Area (A350)

Analytic computation

- Check, analyze and determine the critical loadcase combinations for First Flight Clearance (FFC) and Batch3
- Determine the lowest reserve factors for the interfaces in generic and non-generic area (WUC Interface) in Trailing Edge Overhang (Aileron and Spoilers as well the Buttstraps) and in Spar landing (Spoilers, Aileron, Buttstrap und Inwing Rib) for FFC and Batch3

Mitigation for lower RFs

- Reduce conservatism in the load correlation
- Reduce conservatism in the temperature applied

Report

- Creation of stress dossier for justification (FFC)

Tools:

ISAMI, MS-Office

01/11 – 04/11

AIRBUS / GECI/ Bishop GmbH in Hamburg/

Activity: Stress of structural mechanics ATA21 & ATA36 (A400M)

Analytic computation

- Determine the critical loads
- Determine the reserve factors for each brackets and pipes

Computation with FEM

- Determine the reaction forces and the critical stress
- Creation of reports for certification

Tools:

PATRAN/NASTRAN, MS-Office

06/10 – 12/10

AIRBUS / DIEHL-AIRCABIN / FERCHAU GmbH / Bishop GmbH in Hamburg/

Activity: Stress of structural mechanics ATA21 (A350)

Computation with FEM

- Determine the critical stress (bracket and pipe)
- Determine the reaction forces and the critical stress
- Determine the natural frequency (bracket and pipe)

Analytic computation

- Determine the critical loads
- Determine the reserve factors for each brackets and pipes

Technical support the bracket-teams within the design division

Tools:
PATRAN/NASTRAN, MS-Office

02/10 – 05/10

AIRBUS / GECI/ Bishop GmbH in Hamburg/

Activity: Stress of structural mechanics ATA21 & ATA36 (A400M)

Analytic computation

- Determine the critical loads
- Determine the reserve factors for each brackets and pipes

Computation with FEM

- Determine the reaction forces and the critical stress
- Creation of reports for certification

Tools:
PATRAN/NASTRAN, MS-Office

10/09 - 01/10

AIRBUS / ELAN GmbH/ Bishop GmbH in Hamburg/

Activity: Evaluation of test results for door surround structure, barrel 1b (strain measurements checked against FE-model) (A350)

Modelling the strain gauges

Comparison of strain measurements with predictions (FE-model)

- Direct comparison between test and FE-model
- Definition of discrepancies between test results and FE-model

Tools:
PATRAN/NASTRAN, MS-Office

07/09 – 09/09

AIRBUS / GECI/ Bishop GmbH in Hamburg/

Activity: Stress of structural mechanics (A400M)

- Determination of Bracket-Assembly (RWR-Processor), ATA87 Electric
- Creation of reports for certification

Tools:
PATRAN/NASTRAN, PRIMES, MS-Office

04/09 – 06/09

AIRBUS / P3/ Bishop GmbH in Hamburg/

Activity: Determination of allowable damage limit due to chafing marks along the a/c belly fairing contour (A330-200, A330-300, A340-200, A340-300)

Rework

- Justification of the allowable damage limits for skin panel thickness chafing marks along the belly fairing (shells and frames)
- Evaluation of reserve factors which are determined from finite element methods (ASSACOS)
- Overview of allowable rework depths and excluded areas

- Reporting

Tools:
MS-Office

02/09 – 03/09

AIRBUS / Bishop GmbH in Hamburg

Activity: Team leader in the Structural Mechanics System
Bracket for ATA 29 (Hydraulics tubes (A400M))

Computation with FEM

- Determine the component strength

Creation of reports for certification

Tools:
PATRAN/NASTRAN, MS-Office

06/07 – 01/09

AIRBUS / Bishop GmbH in Hamburg

Activity: Team leader for the Cabin Structural Mechanics stress B-Brackets (A380-800)
Bracket for Ceiling, PSU (passport-narrow Service unit)

Analytic computation

- Determine the critical loads
- Determine the reserve factors for each brackets

Computation with FEM

- Determine the reaction forces and the critical stress

Creation of reports for certification

Focal point in

- Galley, Stairs, Lavatories, Stowage, Seats and special Cabins

Tools:
PATRAN/NASTRAN, VPM, DMU Navigator, CATIA V4, ZAMIZ, TAKSY, MS-Office

01/07 – 05/07

AIRBUS / Bishop GmbH in Bremen

Activity: Stress ABC & AC-Brackets (A400M)
Bracket for ATA 87 (Electrical cable)

Analytic computation

- Determine the critical loads
- Determine the reserve factors for each brackets (A and B-bracket, traverse beams and additional brackets on the transverse beam)

Computation with FEM

- Determine the critical stress
- Determine the natural frequency

Approval of the approved brackets

Technical support the bracket-teams within the design division

Tools:
PATRAN/NASTRAN, MS-Office

07/06 – 12/06

AIRBUS / Bishop GmbH in Hamburg

Activity : Stress A-Brackets (A380-800, A380-Freighter, A300 TREL13)
Brackets for Ceiling, Sidewall, Stowage, Lateral Light cover, PSU (Passenger Service Units), Lavatories

Approval of brackets

- Inspection of the designs for rivets, loads and components

Linear FEM computation

- Export the Models from VPM (CATIA V4)
- Import the Models in PATRAN/NASTRAN
- Modelling the A-brackets
- Evaluation of FEM results (stress and deformation)

Analytic computation

- Investigation of a/c loads, which determine the applied loads for the computation (acceleration, decompression and hand loads)

Stress Report creation (for internal purposes only)

Analytic investigation of the nimbus brackets for section 13/15/18 Upper deck UAE01 and 02 (A380)

Tools:
PATRAN/NASTRAN, CATIA V4, Enovia VPM, Enovia DMU Navigator, MS-Office

02/05 – 06/06

AIRBUS / AIDA in Hamburg

Activity: Definition and Design within the division Lavatories (A380 BCEGC3)
(as structural mechanics engineer)

Review of customized cabin layouts with CCG (Cabin Configuration Guide) required characteristics and similar configurations

Investigate customer requests

- Collect and verify requirements
- Compare with CCG
- Compare with pre-defined Cabin Flexibility Concept
- Report comments and repercussions
- If applicable, create concept design

Create lavatory concept designs

- Create product structure
- Create 3D space allocation models
- Define preliminary system layout and interfaces

Define lavatory interfaces

- Establish agreed interfaces
- Negotiate non-CCG subjects
- Select applicable info from pre-defined Cabin Flexibility Concept

- Creation Engineering of drawings (2D)

Define lavatory outside provisions

- Collect weight, stress information etc.
- Define provisions (3D)
- Creation Engineering of drawings (2D)
- Design of cutouts (3D, 2D)

Participate in DMU/clash-review meetings

- Negotiate required actions
- Investigate cause/origin
- Customer Design Review

Support other taskteams, responsible for similar or adjacent equipment (e.g. stowage, cockpit doors, crew rest compartments)

Data-exchange supplier-integrator vice versa

- Initial data quality-check
- Positioning in Airbus VPM product-structure
- Check design quality and consistency

Support of MSN007 (co-ordination, CMs, general inspections, changes)

Tools:

CATIA V4, Enovia VPM, Enovia DMU Navigator, MS-Office

11/04 – 01/05

AIDA in Hamburg / AIRBUS

Activity: Airbus-Project 3D-DMU Full Scope (Long Range)
(as structural mechanics engineer)

- Drawing investigation with the ZAMIZ system
- Spec. investigation and DRS (Data Reference Sheet) as template for 3D-modelling
- Adjustments the TAKSY-data
- Analysing modification proposals

Tools:

TAKSY, ZAMIZ, MS-Office

01/04 – 10/04

AIRBUS / YACHT in Hamburg

Activity: Stress (A380 TREBL)
(as structural mechanics engineer)

- Analytic computation of bending stresses on a/c transverse members and reserve factors
- Computation of rivet allowables for connector couplings
- Analytic computations of shear stresses on a/c connector couplings and reserve factors
- FEM analysis for riveted joints

Tools:

PATRAN NASTRAN, CATIA V4, Enovia VPM, Enovia DMU Navigator, MS-Office

05/00 – 03/03

NET-MARKET GmbH in Hamburg

(as a consultant and Technical consultant)

Network consultation, support and administration as a technical consultant

- Administration and maintenance of the network
- Migration of Windows NT 4.0 to Windows 2000
- Construction of a new network concept based on Ethernet 100Mb connection
- Implementation of hardware interfaces (Printer, Scanner, distributor box for the common use of the computers with the keyboard, mice and monitor)
- Firewall structuring
- Implementation of backup facilities

Duration: 15 months

Projects**For Tax Consultants company**

- Responsible for the entire system network
- Training for the available network and requirements of a new network concept
- Introduction and training of internal employees for new software applications and trouble shooting
- Consultation for the new network concept
- Compatibility analysis of future hardware and software
- Firewall structuring
- Migration and customisation of new computers into the network
- Implementation of the Curadata Windows software and SQL-Server
- Migration the data for MS Access database on MS SQL database, maintenance, compression and restructuring the database with the Wac-Service-Tool as well as implementation of the Curadata software updates
- Implementation of the MacAfee Virus Scanner on the server and the workstations
- Installing facilities for a new print server
- Introduction of network documentation (description of complete system architecture)

Duration: 1 month

LINEINFORMATION GmbH

- Implementation of Win NT 4.0 and firewall

01/00 – 04/00

EMPRISE E-Commerce Services ltd. In Hamburg

(as a Technical consultant)

Implementation of the payment system "SelfServe", technical support and consultation for the network

- Embedding of the payment system "SelfServe" into Online-Shop-Websites under the following system environments:
 - Perl under Unix
 - Active-X under Windows NT
 - ASP under Windows NT
- Technical consultation and assistance to online shop operators for the integration of „SelfServe“ into the shops
- Establishment of NT-Server for internal test purposes

03/98 – 02/99

GEDYS IPC in Braunschweig

(freelancer)

Software Quality assurance in the area of software

- Carrying out tests of the newly developed software programs

06/95 – 12/98

DLR / INVENT (subsidiary of DLR) in Braunschweig

(collaborator as engineer)

Development of the LamTech module LamSpar

- Development of calculation routines for beam sections from fibre made composite materials following a failure analysis
- Check of existing rake routines and addition to the latest standard of technology

Development of the LamTech module LamFail (Failure analysis)

- Calculation of the fibre local layer tension of fibre composites failure extension
- Embedding of results in computer program
- Designing of Graphical User Interface
- Carrying out tests of the developed modules and documentation

Development of the LamTech module LamNotch (with part full components)

- Analytical calculation of fibre compound structures
- Carrying out tests of the of modules
- Preparation of a user manual for the Lam Notch software
- Checking of existing rake routines and addition to the latest standard of technology

Tools:

MS-Office

08/94 – 03/95

Faculty of Mechanical and Electrical Engineering at the Technical University in Braunschweig (student assistant) **General Mechanics and Material strength**

- Calculation of metallic and fibre reinforced materials to use in finite elements methods (ABAQUS)
- ABAQUS was used as an integral component for Master thesis work

01/91 – 12/94

ALFA-Lasertechnik in Braunschweig

(as student)

- Repair of punch dies
- Visual checking of laser welding seams
- Quality control of finished materials by laser gats machine and stamping machine
- Gauge and check the finished parts in the production
- Assembly and disassembly
- Component design

Further Education

17.12.01 - 21.12.01

Linux: system Administration

- Linux/UNIX basic concepts
- man-pages and information Data
- start of the systems und stop, Linux-boot-concept, scripts start
- installation of SuSE Linux
- Models and kernel compilation
- data backup
- Log-Files and system supervision
- use of the SuSE rescue system
- shell programming (basics)

08.07.02 - 09.07.02
and
23.07.02 - 23.07.02

MS Access

- designing database
- establishing relationships between tables
- define simple and complex choice queries
- preparation of tables and relationships as well as types of relationships
- introduction in SQL
- data manipulation with SQL
- basics of user administration

09.09.02 – 27.09.02

CIC 2.2 from Interactive Intelligence

- IC 2.2 Installation & Troubleshooting
- IC 2.2 System Administration
- IC 2.2 Handler Development
- IC 2.2 Aculab Virtual Install
- IC 2.2 SIP Virtual Install
- IC 2.2 TAPI Virtual Install

The Interaction Center Platform™ is a powerful platform for implementing comprehensive interaction management covering not only telephone calls and faxes but also e-mail messages, Internet text chats, and Web callback requests. It also provides a smooth transition from circuit-switched telephony to voice over IP. Using the Interaction Center Platform, enterprises, contact centers, and service providers can centralize the processing of all customer interactions and provide a new level of service and consistency.

10.2003 – 12.2003

Indisoft in Hamburg, CAD (Auto CAD, CATIA V4) design:

Participation certificate

03.2004 – 03.2004

MSC Institute of Technology in Hamburg, Introduction to MSC.PATRAN Basic und Advanced:

Participation certificate

07.2004 – 07.2004

Airbus in Hamburg, ISSY Basic Training:

Participation certificate

04.2005 – 04.2005

Cenit in Hamburg, Enovia VPM-Basic Training A380/LR:

Participation certificate

06.2006 – 06.2006

Bishop GmbH Aeronautical Engineers in Hamburg, Airframe Stress Analysis and Sizing Course (Advanced Technology Training):

Participation certificate

23 – 27.01.2012

Fatigue & Damage Tolerance in Hamburg-Finkenwerder

The course comprised approximately 32 hours lectures and presentations.

Subjects:

- Tips on fatigue and damage tolerant design
- History of fatigue, conclusions and regulations
- Fatigue and damage tolerance analysis including load spectra and maintenance
- Design and analysis of repairs and allowable damages
- Definition of allowable stresses
- Programs for fatigue and damage tolerance tests
- Aging aircraft and life extension including widespread fatigue damage evaluation
- Advanced materials and technologies

Hamburg, 14-August-13