

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC

Petitioner

v.

ECOFACOR, INC.

(record) Patent Owner

Patent No. 10,534,382

DECLARATION OF RAJENDRA SHAH

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I. ENGAGEMENT AND COMPENSATION

1. My name is Rajendra Shah. (Ex. 1003). I have been retained by Google LLC for the purpose of providing my opinion with respect to the unpatentability of U.S. Pat. No. 10,534,382 (“the ’382 patent”). I am being compensated for my time in preparing this declaration at my standard hourly rate, and my compensation is not dependent upon my opinions or the outcome of the proceedings. My curriculum vitae is attached as Ex. 1003.

II. QUALIFICATIONS

2. I am currently the Principal at AnalyzRS LLC, a company providing, among other things, consulting services for the HVAC industry. I have been employed in this position since 2016.

3. I consider myself to have significant knowledge and experience in Heating, Ventilating and Air Conditioning (“HVAC”) systems, with particular knowledge relating to associated technology integration, control algorithms, modeling and simulation, and data analytics. I have significant knowledge and experience relating to the optimization of the operational efficiency of HVAC systems. My current Curriculum Vitae is attached as Exhibit 1003, and summarizes my qualifications.

4. Prior to my work for AnalyzRS LLC, I was employed at United

Technologies Carrier Corporation in Indianapolis, Indiana from 1991 to 2016. During my career at Carrier, my work focused on the design and development of HVAC systems and associated technologies. From 1991 to 2000, I was employed as a Senior Program Manager for Advanced Systems at Carrier. While in that position, I had responsibility for the launch of new product categories, including two stage air conditioners and heat pumps, variable speed fan coils, digital thermostats, multi zone controls, expandable filters, and fresh air ventilators.

5. From 2000 to 2008 I was employed as an Engineering Manager for Systems Development. In that role I designed and managed the design of premium air conditioners, heat pumps, indoor fan coils, advanced thermostats, multi-zone controls and indoor air quality products. In particular, my team developed Carrier's Infinity® HVAC system, which was originally launched in 2004, and which went on to be a highly successful product.

6. From 2008 to 2016 I held the title of Engineering Fellow, Systems and Controls. I was one of the first eight Fellows selected to what was Carrier's top engineering position out of thousands of engineers worldwide. While in this position, I worked to develop Carrier's Infinity® Touch Control system with internet connectivity, which was first launched in 2012. This product received the Dealer Design Gold award from industry magazine ACHR News in 2013 and has continued to be a top-selling product for Carrier.

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