## EH

## EDWARD HERBERT—BIOGRAPHY & PERSPECTIVE

"My inventive process often starts with a presentation of an orthodox approach to a problem and a gut feeling that there is a better way."

Mr. Edward Herbert is first and foremost an inventor. A prolific innovator, he holds over 20 US patents covering many different applications and technologies both within and beyond electronic power conversion.

"It is important to be aware of the limitations of complacent orthodoxy - doing things by the book because that's the way they always have been done... or getting comfortable with assumptions and forget that they are just assumption."

Continually creating viable new approaches, he presently has a large number of patent applications. He is founder and president of FMTT, Inc., created to focus on manufacturing the matrix transformer, one of his magnetics technology innovations from the late 80s.

"It has always been important to me to also have competency in those disciplines which interface with my designs."

Throughout his career, Mr. Herbert has tried to be more than just an Electrical Engineer. His patents reflect this philosophy since they span so many different technologies—magnetics, semiconductors, heat flow, power electronic topologies, capacitors, and fans. Further, he bases his designs on physics fundamentals continually augmenting his innovations with disciplined quantitative analysis. Anticipating problems and finding solutions before they get into a design has been the key to Mr. Herbert's inventive process.

"As a project engineer, I tried to have manufacturing people involved from the very first kick-off meetings, and I followed my designs down to the manufacturing floor and out into the field."

A graduate from Yale University in Electrical Engineering, Mr. Herbert draws upon his broad practical experience collected from a commercial and military equipment design career that spans over 30 years. Having held positions from Design Engineer to Supervisor of Electrical Design and Chief Engineer in companies that provided very successful products to global customers like Dynamic Controls Corp., South Windsor, CT; IBM., Huntsville, Alabama; Sundstrand Aviation, Rockford, Illinois; Hamilton Standard, Windsor Locks, CT; Raytheon Submarine Signal Div., Portsmouth, RI; Sikorsky Aircraft, Stratford, CT.

"When something works better than expected, it is equally important to understand why it does."

He has authored several technical papers including "Design and Application of Matrix Transformers and Symmetrical Converters"