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FILE: [REDACTED] Office: CALIFORNIA SERVICE CENTER Date: FEB 01 2005
WAC 03 086 52809

IN RE: Petitioner: [REDACTED]
Beneficiary: [REDACTED]

PETITION: Immigrant Petition for Alien Worker as Outstanding Professor or Researcher Pursuant to
Section 203(b)(1)(B) of the Immigration and Nationality Act, 8 U.S.C. § 1153(b)(1)(B)

ON BEHALF OF PETITIONER:
[REDACTED]

INSTRUCTIONS:

This is the decision of the Administrative Appeals Office in your case. All documents have been returned to the office that originally decided your case. Any further inquiry must be made to that office.

Robert P. Wiemann, Director
Administrative Appeals Office

DISCUSSION: The employment-based immigrant visa petition was denied by the Director, California Service Center, and is now before the Administrative Appeals Office on appeal. The appeal will be dismissed.

The petitioner is a developer, manufacturer and marketer of analog and digital audio coding technologies. It seeks to classify the beneficiary as an outstanding researcher pursuant to section 203(b)(1)(B) of the Immigration and Nationality Act (the Act), 8 U.S.C. § 1153(b)(1)(B). The petitioner seeks to employ the beneficiary permanently in the United States as a research staff engineer. The director determined that the petitioner had not established the significance of the beneficiary's research, or that the beneficiary is recognized internationally as outstanding in his academic field, as required for classification as an outstanding researcher.

Section 203(b) of the Act states, in pertinent part, that:

(1) Priority Workers. -- Visas shall first be made available . . . to qualified immigrants who are aliens described in any of the following subparagraphs (A) through (C):

(B) Outstanding Professors and Researchers. -- An alien is described in this subparagraph if --

(i) the alien is recognized internationally as outstanding in a specific academic area,

(ii) the alien has at least 3 years of experience in teaching or research in the academic area, and

(iii) the alien seeks to enter the United States --

(I) for a tenured position (or tenure-track position) within a university or institution of higher education to teach in the academic area,

(II) for a comparable position with a university or institution of higher education to conduct research in the area, or

(III) for a comparable position to conduct research in the area with a department, division, or institute of a private employer, if the department, division, or institute employs at least 3 persons full-time in research activities and has achieved documented accomplishments in an academic field.

The regulation at 8 C.F.R. § 204.5(i)(3) states that a petition for an outstanding professor or researcher must be accompanied by:

(ii) Evidence that the alien has at least three years of experience in teaching and/or research in the academic field. Experience in teaching or research while working on an advanced degree will only be acceptable if the alien has acquired the degree, and if the teaching duties were such that he or she had full responsibility for the class taught or if the research conducted toward the degree has been recognized within the academic field as outstanding. Evidence of teaching and/or research experience shall be in the form of letter(s) from former or current employer(s)

and shall include the name, address, and title of the writer, and a specific description of the duties performed by the alien.

This petition was filed on January 21, 2003 to classify the beneficiary as an outstanding researcher in the field of engineering. Therefore, the petitioner must establish that the beneficiary had at least three years of research experience in the field of engineering as of that date, and that the beneficiary's work has been recognized internationally within the field of engineering as outstanding.

The regulation at 8 C.F.R. § 204.5(i)(3)(i) states that a petition for an outstanding professor or researcher must be accompanied by "[e]vidence that the professor or researcher is recognized internationally as outstanding in the academic field specified in the petition." The regulation lists six criteria, of which the petitioner must satisfy at least two. It is important to note here that the controlling purpose of the regulation is to establish international recognition, and any evidence submitted to meet these criteria must therefore be to some extent indicative of international recognition. The petitioner claims to have satisfied the following criteria.¹

Evidence of the alien's participation, either individually or on a panel, as the judge of the work of others in the same or an allied academic field

The director concluded that the beneficiary meets this criterion.

Evidence of the alien's original scientific or scholarly research contributions to the academic field

The beneficiary obtained his Ph.D. in 1996 from the University of Freiburg, Germany, including two years as a visiting student at Shandong University. The beneficiary continued to perform research at the University of Freiburg for a year postdoctoral before moving to Siemens AG in Munich, Germany. In December 2000, the beneficiary began working for the Tellabs Research Center in Cambridge, Massachusetts. Finally, in August 2002, the beneficiary began working for the petitioner.

Dr. [REDACTED] the beneficiary's Ph.D. supervisor at the University of Freiburg, asserts that the beneficiary is "playing a key role in applying principles of analytic methods in mathematics to communications systems." More specifically, the beneficiary "was the first ever to establish an upper bound for the corresponding exceptional set in short intervals." The beneficiary then applied this work to other problems including "(1) the representability of natural numbers as sums of five almost equal prime squares; (2) a Goldbach-Waring type result; and (3) a variant of the famous Goldbach conjecture for arithmetic progressions."

Dr. [REDACTED] the beneficiary's former fellow Ph.D. student at Shandong University and coauthor, asserts that the beneficiary's work "is well-regarded by the international research community." Dr. [REDACTED] provides similar information to that provided by Dr. [REDACTED]. Dr. [REDACTED] further asserts that he and a collaborator "applied the argument developed by [the beneficiary] to the problem of the exceptional set of four prime squares." As a result of applying their collaborative work, Dr. [REDACTED] improved previous estimates significantly.

Dr. [REDACTED] former Director of Research at Tellabs Operations, Inc. and a professor at the Massachusetts Institute of Technology (MIT), discusses the beneficiary's work with Micro-Electro-Mechanical Systems (MEMS). Dr. [REDACTED] explains that this system "is the integration of mechanical elements, sensors,

¹ This decision will only discuss those criteria claimed by the petitioner or for which relevant evidence was submitted.

actuators, and electronics on a common silicon substrate through microfabrication technology." MEMS is revolutionary in that it has the potential to bring together silicon-based microelectronics with micromachining technology leading to "complete systems-on-a-chip."

The most complicated devices of communication networks are the switches. According to Dr. [REDACTED] prior to the beneficiary's work with MEMS, "due to long switching times and delays associated with them, MEMS-based switches have not been considered for optical packet switches." The beneficiary, however, "developed an innovative theoretical performance analysis, and led a large scale simulation project for which a software engineer was temporarily hired and supervised by [the beneficiary]." As a result, the beneficiary "was the first in the field to be able to give exact performance data for MEMS based parallel switches." Dr. [REDACTED] asserts that "detailed recommendations of the feasibility of MEMS based switches for specific commercial applications throughout the industry" are now possible. As an example, Dr. [REDACTED] asserts that "related research" was performed at Stanford University and was presented at the Infocom 2002 conference.

In a second letter, Dr. [REDACTED] states:

[The beneficiary] was the first to devise a policy that can be implemented in a distributed manner, but has the great advantage of low complexity. His work is the first to not only provide a new theoretical foundation for network routing, but is of tremendous practical usage. [The beneficiary's] groundbreaking idea is based on a new way to understand the inner structure of the implemented policy. In particular, he showed that the class of maximal matching algorithms lends itself to specific, formerly unknown algebraic description. Only this description allows [the beneficiary] to derive his pioneering results on the stability of networks of routing devices that implement practical policies based on maximal matching algorithms.

Regarding the beneficiary's contributions to wireless technology, Dr. [REDACTED] further states that the beneficiary "brought new insight into the coordination of internet and radio technology which is fundamental for the successful research in future wireless networks."

Dr. [REDACTED] a senior research scientist at Telcordia Technologies, asserts that the beneficiary made substantial contributions to the Mobile Wireless Internet Forum (MWIF). Specifically, the beneficiary's contributions "have significantly influenced the specifications of the Mobile Wireless Internet, and have since been incorporated in official standards specifying the network architectures of future wireless networks." According to Dr. [REDACTED] these standards "are now being followed by major telecommunications companies that are developing future wireless networks worldwide." [REDACTED] Chief Architect for the Java Technology for Service Providers Group at Sun Microsystems, Inc., asserts that he represented Sun Microsystems at the MWIF standardization meetings and is aware of the beneficiary's contributions to that forum. Specifically, Mr. [REDACTED] asserts that the beneficiary "took a leading role in the development of reference architectures for future network architectures that have since become official documents of the Mobile Wireless Internet Forum."

Neither Dr. [REDACTED] nor Mr. [REDACTED] indicates how many individuals participated in the forum and the petitioner does not submit evidence, such as media coverage, reflecting the significance of the forum to the industry. The record lacks the final standards formulated by the forum. Thus, the petitioner has not established that the beneficiary is credited with an influence on these standards. Moreover, the letters from Dr. [REDACTED] and Mr. [REDACTED]

Arango were submitted in response to the director's request for additional documentation and are dated after the date of filing. Neither letter indicates when the beneficiary worked with the MWIF; thus, the record does not establish that this participation occurred prior to the date of filing. The petitioner must establish the beneficiary's eligibility as of that date. *See* 8 C.F.R. § 103.2(b)(12); *Matter of Katigbak*, 14 I&N Dec. 45, 49 (Reg. Comm. 1971).

Dr. [REDACTED] a former research engineer at the Tellabs Research Center, discusses the beneficiary's work with Multiprotocol Label Switching Technology (MPLS). Dr. [REDACTED] explains that MPLS networks are expected to be used on top of existing networks and, thus, require multilayer protection. The beneficiary invented techniques to coordinate the recovery techniques of multiple layers, allowing recovery at different layers and the distribution of restoration decisions throughout the network. Dr. [REDACTED] asserts that Tellabs adapted this work for a new product line for Internet based Virtual Private Networks, significantly increasing "the complexity and scope of research at Tellabs."

Dr. [REDACTED] President of Metanoia and a co-developer of MPLS signaling and routing standards, asserts that the beneficiary's development of low-complexity algorithms that can guarantee the stability of the switch is a remarkable contribution.

Dr. [REDACTED] another engineer at Tellabs Operations, Inc., provides similar information and also discusses the beneficiary's work with Optical Burst Switching (OBS), which promises advantages over other switching techniques. Specifically, the beneficiary proposed a novel architecture for OBS, demonstrating a quality of service not supported by previous OBS models.

The only letter to reference a patent is from Dr. [REDACTED] former Chief Technical Officer for Tellabs Operations, Inc. Dr. [REDACTED] asserts that he and the beneficiary collaborated on a packet voice gateway project that resulted in a non-provisional patent application. The petitioner did not provide the patent application listing the beneficiary as an inventor.²

Dr. [REDACTED] a member of the technical staff at MIT who collaborated with the beneficiary on virtual private networks, asserts that a recent groundbreaking theorem by a professor of the University of Michigan could not have been derived without the beneficiary's earlier work.

On appeal, the petitioner submits another independent reference letter from Dr. [REDACTED] While Dr. [REDACTED] never collaborated with the beneficiary, he received his Ph.D. from Shandong University, where the beneficiary also studied. Dr. [REDACTED] reviews several articles that have cited the beneficiary's work. The field of engineering is constantly and rapidly evolving, with new innovations building on past theoretical work. As will be discussed below, we do not find that the beneficiary's minimal citation history, some of which are self-cites by a coauthor, is indicative of international recognition.

In addition, the petitioner submits a letter from a principle staff engineer with the petitioning entity attesting to recent accomplishments by the beneficiary. Similarly, the petitioner submits recent conference presentations, invitations, and publications. This evidence does not relate to the beneficiary's eligibility as of the date of filing.

² A search of the United States Patent and Trade Office's website, www.uspto.gov, reveals a "packet voice gateway" patent application filed by Tellabs on November 27, 2001. The beneficiary is not listed as an inventor.

Obviously, the petitioner cannot satisfy this criterion simply by listing the beneficiary's past projects, and demonstrating that the beneficiary's work was "original" in that it did not merely duplicate prior research. Research work that is unoriginal would be unlikely to secure the beneficiary a degree, let alone classification as an outstanding researcher. Because the goal of the regulatory criteria is to demonstrate that the beneficiary has won international recognition as an outstanding researcher, it stands to reason that the beneficiary's research contributions have won comparable recognition. To argue that all original research is, by definition, "outstanding" is to weaken that adjective beyond any useful meaning, and to presume that most research is "unoriginal."

While the beneficiary's research is no doubt of value, it can be argued that any engineering research must be shown to be original and present some benefit if it is to receive funding and attention from the engineering community. Any Ph.D. thesis or postdoctoral research, in order to be accepted for graduation, publication or funding, must offer new and useful information to the pool of knowledge. As will be discussed below, the record lacks evidence that the beneficiary's algorithms have been widely cited beyond his collaborators. Moreover, the record also lacks evidence that the beneficiary's innovations have been patented and have generated significant interest internationally. Finally, the record lacks letters from independent engineers applying the beneficiary's algorithms in their own work or professors who have incorporated the beneficiary's work into their course materials. Thus, the record does not establish that the beneficiary's work has garnered international recognition as a groundbreaking advance in his field.

Evidence of the alien's authorship of scholarly books or articles (in scholarly journals with international circulation) in the academic field

Initially, the petitioner submitted 10 published articles authored by the beneficiary. In response to the director's request for evidence that the journals are circulated internationally, the petitioner submitted evidence that *IEEE Communications Magazine*, *Acta Mathematica Sinica* and *Archiv der Mathematik* all have broad international editorial boards. The petitioner also submitted evidence that the *Journal of Number Theory* serves as an "international forum for the publication of original research." Finally, the petitioner submitted evidence that *Lecture Notes in Computer Science* has an international editorial board and publishes conference proceedings from international conferences.

Of these journals, the beneficiary has published in the *Journal of Number Theory*, *Acta Mathematica Sinica* and *Lecture Notes in Computer Science*. The director concluded that the petitioner had not established that the beneficiary published more than one article in an internationally distributed journal, the *Journal of Number Theory*. On appeal, counsel asserts that, as of the date of appeal, the beneficiary has published 19 articles, all in journals with an international circulation. The petitioner submits all 19 articles, nine of which were published after the date of filing and cannot be considered evidence of the beneficiary's eligibility as of that date. See 8 C.F.R. § 103.2(b)(12); *Matter of Katigbak*, 14 I&N Dec. at 49.

The petitioner also submitted evidence that [REDACTED] the *Journal of Number Theory*, *Acta Arithmetica*, *Acta Mathematica Sinica*, *Archiv der Mathematik*, *Studia Scientiarum Mathematicarum Hungarica*, *The Rocky Mountain Journal of Mathematics* and *Computer Performance Evaluation* are all available at university libraries around the world. The petitioner has now established that, as of the date of filing, the beneficiary had published articles in seven journals with international distribution and had presented his work at two international conferences.

The Association of American Universities' Committee on Postdoctoral Education, on page 5 of its *Report and Recommendations*, March 31, 1998, sets forth its recommended definition of a postdoctoral appointment. Among the factors included in this definition are the acknowledgement that "the appointment is viewed as preparatory for a full-time academic and/or research career," and that "the appointee has the freedom, and is expected, to publish the results of his or her research or scholarship during the period of the appointment." Thus, this national organization considers publication of one's work to be "expected," even among researchers who have not yet begun "a full-time academic and/or research career." This report reinforces Citizenship and Immigration Services' position that publication of scholarly articles is not automatically evidence of international recognition; we must consider the research community's reaction to those articles.

On appeal, the petitioner submits several articles that cite the beneficiary's work. Two of those articles are from the beneficiary's former collaborators who do not cite specific work by the beneficiary but simply acknowledge the beneficiary for his advice in the preparation of the article. The beneficiary's article in the *Journal of Number Theory*, with eight citations, is the only one of the beneficiary's articles to receive more than a single citation. Two of those citations, however, appeared after the date of filing. More significantly, six of those citations are self-cites by one of the beneficiary's coauthors on that article. While self-citations are normal and expected, they cannot demonstrate that the beneficiary is recognized beyond his immediate circle of collaborators. Two independent citations are not indicative of or consistent with international recognition.

The petitioner has shown that the beneficiary is a talented and prolific researcher, who has won the respect of his collaborators, employers, and mentors, while securing some degree of international exposure for his work. The record, however, stops short of elevating the beneficiary to an international reputation as an outstanding researcher or professor. Therefore, the petitioner has not established that the beneficiary is qualified for the benefit sought.

The burden of proof in these proceedings rests solely with the petitioner. Section 291 of the Act, 8 U.S.C. § 1361. The petitioner has not sustained that burden. Accordingly, the appeal will be dismissed.

ORDER: The appeal is dismissed.